MapInfo Professional

Version 9.5

SUPPLEMENT

Pitney Bowes
MapInfo

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Installing and Configuring MapInfo Professional

This chapter helps you install and set the basic preferences for MapInfo Professional®. In addition, there are instructions for fixing problems that come up as part of the installation process. We also cover starting and exiting the product.

Topics in this Section:

System Requirements

Below are the guidelines for minimum and recommended system requirements. Please note that hardware requirements do vary based on your use of the product and your system. In general, a higher processor speed, larger memory (RAM) and industry leading graphics cards provide a better user experience and result in better responses from MapInfo Professional. These are the minimum system requirements for MapInfo Professional 9.5:

Operating Systems	Memory	Disk Space	Graphics	Monitor
Windows 2000 Professional SP 4 Windows XP Professional SP 2 Windows XP Home SP 2 Windows XP (64-bit) Windows Vista Ultimate	128 MB of RAM with a minimum of a Pentium PC	Application 103 MB Data 450 MB	16- or 24-bit Color	800x600 Display
Windows 2000 Server SP4 Windows 2003 Enterprise Server SP 1 with Terminal Services/Citrix 4.0	64 MB of RAM with a minimum of a Pentium PC	Application 103 MB Data 450 MB	16- or 24-bit Color	800x600 Display

* MapInfo Professional is not currently Windows Vista certified.

These are the recommended system requirements for MapInfo Professional 9.5:

Operating Systems	Memory	Disk Space	Graphics	Monitor
Windows 2000 Professional SP 4 Windows Vista Ultimate Windows XP Professional SP 2 Windows XP Home SP 2 Windows XP (64-bit)	256/512 MB of RAM with a minimum of a Pentium PC or better	Fast EIDE 2 or SCSI Interface with 2GB or better Data 450 MB	Mid to High 2D/3D card with 128MB or better	Greater than 1024x768 resolution or better
Windows 2000 Server SP4 Windows 2003 Server SP 1 with Terminal Services/Citrix 4.0	Same, PLUS memory sufficient to support each connected user	Fast EIDE 2 or SCSI Interface with 2GB or better Data 450 MB	*Server*: Same *Client*: Choose based on resolution/speed requirements	Greater than 1024x768 resolution or better

Note   **For Windows 2003 Server Users**: Remember that some of the options you choose for the server can limit the options available to the client system.

Quality Assurance has exhaustively tested MapInfo Professional under the following Microsoft Windows Desktop Operating Systems:

- Windows 2000 Professional
- Window XP Home Edition
- Windows XP Professional

Quality Assurance has exhaustively tested MapInfo Professional under the following Microsoft Windows Server Operating Systems:

- Windows 2003 Server
- Windows 2003 with Terminal Services with Citrix Meta Frame technology. To learn more about this installation option see **Windows 2003 Server with Terminal Services/Citrix Support on page 10**.

Quality Assurance has performed Installation and validation testing on the following 64Bit Windows Operating System:

- Microsoft's 64-bit Windows XP Professional with 32 Bit compatibility mode.

Note There are no special installation instructions for installing MapInfo Professional on a 64-bit Windows Operating System. Please follow the instructions designed for your installation type (**Typical Workstation Installation on page 15**, or **Custom Workstation Installation on page 16**) presented in this chapter.

MapInfo Professional and Operating System Support

This section provides additional detail on the operating system support for MapInfo Professional, including:

- **Windows 2000 Support on page 9**
- **Windows 2003 Server with Terminal Services/Citrix Support on page 10**

Windows 2000 Support

MapInfo Professional supports Windows 2000 (SP 4) features as described in the Application Specification for Microsoft Windows 2000 document (available at **/http://technet.microsoft.com/en-us/windowsserver/2000/default.aspx)**.

The key aspects of Windows 2000 support with regard to MapInfo Professional are:

- Supporting multiple users on a single machine, each having their own application settings.
- Supporting use of MapInfo Professional on a secure Windows 2000 computer (one where users have very limited access rights).
- Using an installer based on the Windows Installer Service.

In order to support these requirements, we have changed the location of many application data files (for example, files containing information used by MapInfo Professional during execution (for example, the projection file, mapinfow.prj). The installer places the files under the current user's Application Data folder. Likewise, some registry entries have been moved from HKEY_LOCAL_MACHINE to locations under HKEY_CURRENT_USER. In both cases the current

user is guaranteed to have write access to the folder or registry key. Also, since the files and registry entries are stored in user specific locations, each user of the computer has their own application data files (e.g. each has their own copy of the preference file, mapinfow.prf).

Note   The changes described above apply to all versions of Windows supported by MapInfo Professional. The exact location of the Application Data folder varies depending on the version of Windows:

OS	Application Data Folder Location
Windows 2000 (SP 4)	c:\Documents and Settings<user name>\Application Data
Windows XP Professional (SP 2)	c:\Documents and Settings<user name>\Application Data
Windows XP Home (SP 2)	c:\Documents and Settings<user name>\Application Data

Windows 2003 Server with Terminal Services/Citrix Support

MapInfo Professional supports Windows 2003 Server with Terminal Services through Citrix to allow any member of the group *Users* to be able to use MapInfo Professional via a Terminal Services session. The Terminal Services feature is essential to the operation of the Citrix Access Infrastructure.

We recommend that you consult with your Citrix administrator in the Citrix configuration guidelines PDF. That document includes both questions and answers about RAM and CPU requirements. This document is available by clicking this link.
http://support.citrix.com/servlet/KbServlet/download/4257-102-11011/Load_Manager_Guide.pdf.

We have tested MapInfo Professional with a standard install of Citrix v4.0 and Microsoft Terminal Services 2003. We verified the testing of MapInfo Professional on CITRIX v4.0. MapInfo Professional does not require any client side technology, however, Citrix requires the Citrix Client to be installed. We tested against Version 6.20.985 of the client.

The recommended RAM amount is based on the general guidelines from Citrix and uses this formula:

```
RAM required for the application x the number of concurrent users
```

Our testing of MapInfo Professional running Citrix on a Pentium CPU suggests these guidelines:

```
64MB of RAM X the number of concurrent users
```

We have modified our installation process to ensure that MapInfo Professional operates successfully in a Terminal Services/Citrix environment. When the installer detects that the user is installing locally in a system running Windows 2003 Server with Terminal Services through Citrix, the installer adds the necessary files and components to that machine. Once the user connects for the first time to the Terminal Services/Citrix computer and runs MapInfo Professional, a user configuration process begins to copy the per-user files needed to run MapInfo Professional. This works in the same way for Windows 2003 Server/Citrix clients as any other MapInfo Professional windows client.

During the installation process, if you decide that the default installation locations are not appropriate for your implementation, you can change these locations using the MODE.INI file. For more information about constructing a custom MODE.INI file, see **Controlling the Location of Application Data Files During Installation on page 37.**

All Citrix testing we have done has been accomplished using the standard Citrix server and client installations. We used Citrix Server version 4.0 and the Citrix Client version 6.20.985. Installing MapInfo Professional on the Citrix Server

Citrix users follow the **Typical Workstation Installation** instructions to install MapInfo Professional.

Note   While we expect to work with ODBC and OCI technology on Citrix, we recommend that your Citrix administrator consult with database vendor documentation to configure their respective drivers on Citrix.

MapInfo Professional Database Connectivity and Support

MapInfo Professional supports the following spatial database servers:

- SQL Server 2000/2005
- Informix 9.x
- Solaris 32-bit
- HPUX
- Oracle Spatial 10G, 9iR2, 9iR1

Further, using ODBC drivers, you can access your data from MapInfo Professional using:

- Oracle ODBC Driver 9x
- SQL Server 2000/2005
- Informix 3.x

You can also open tables of data from the following databases and make them mappable but only for point data:

- Oracle 9iR2
- Oracle 10G
- Oracle 11G
- MS Access XP
- MS SQL Server 2000/2005
- Informix 9.4

For more about working with remote database information, see *Accessing Remote Data* and *Setting your Database Connection Preferences* in the *Help System*.

A Note about SQL Server 2005 Support

MapInfo Professional supports the changes in the MS SQL Server 2005 schema concept. Microsoft has enhanced SQL Server 2005 to use schemas to organize database objects into namespaces. In the past the schema was part of the owner/user construct, so when you deleted a user, you deleted the objects associated with that user.

Using SQL Server 2005, objects are associated with a schema, which can be associated with many users and each user can be associated with many schemas.

The old fully qualified name of a database object was:

*Server.Database.**User**.Object*.

The new fully qualified name of the object is:

*Server.Database.**Schema**.Object*

If you leave out the server and database name identifiers, MapInfo Professional uses the current server and database names. If you do not explicitly specify a schema for a user, the server assumes any unqualified object names are in the default schema. Therefore, if you are accessing a SQL Server 2005 database, you need to update any features/functions, tools, and test scripts accessing the objects, including the metadata in the MAPCATALOG, to use the new fully or partially qualified object name.

To make this version of SQL Server work, you must have this 8.5.1 (or later) version of MapInfo Professional. There is a work around for MapInfo Professional 8.5 and earlier versions that accesses a server table with the form, *Database.Owner.Object*. Review the MapInfo Professional 8.5 *User Guide* for these instructions.

Before You Install MapInfo Professional

Before installing MapInfo Professional, record your serial number and access code in an easy-to-remember place, such as the title page of the *User Guide* or *Supplement*. You need a valid serial number and access code to complete an installation or an upgrade. Also, please complete the postage-paid registration card and return it to Pitney Bowes MapInfo Corporation. Additionally, you can register online by accessing the Contact Info option on the CD Browser.

If the MapInfo Professional installer detects a current version of the product, 6.0 or earlier, or detects that the product had been installed at some time, the installer copies the MAPINFOW.WOR, STARTUP.WOR and MAPINFOW.PRF from the operating system's system directory to <user profile root>\Application Data\MapInfo\MapInfo.

Application data (appdata) files are the non-executable data files that MapInfo Professional uses during operation.

To use a silent installation procedure, see .

Navigating the MapInfo Professional CD Browser

The initial screen of the MapInfo Professional CD Browser includes these options:

- *Install Products*
  From this option you can install MapInfo Professional (including DBMS support and translators), free data, access to the documentation, and Install Utilities, including: ECW Compressor and GPS.

- *What's New*
  Displays a list and description of new and enhanced features.
- *Online Reference*
  MapInfo Professional provides the following online reference documents: The MapInfo Professional *Supplement*, MapBasic *Reference*, Crystal Reports *User's Guide*, the MapInfo Professional *Printing Guide*, as well as the Adobe Acrobat Reader. The MapInfo Professional and Crystal Reports documentation are copied into the Documentation subfolder of your installation directory during the installation process.
- *Run MapInfo Tutorial*
  From this option you can access the MapInfo Professional Tutorial from the Pitney Bowes MapInfo web site to learn more about the basic features of the product.
- *Other Products*
  Displays information about MapBasic, MapInfo Discovery, and MapInfo Professional for SQL Server.
- *Contact Information*
  Where ever you are, Pitney Bowes MapInfo is there to help you. Contact us at any of these locations or visit us on the world wide web at **www.mapinfo.com**!
- *Register Online*
  We have simplified the registration process. Simply click this entry and the wizard walks you through the registration process quickly.
- *Browse CD*
  From this option you can review the contents of the CD. There are additional utilities that may be useful to you that are only available when you browse.
- *Exit*
  From this option you can close the CD Browser application.

Installing MapInfo Professional

CAUTION: **We strongly recommend that you exit from all Windows programs before beginning the installation process. If you are upgrading from an earlier version of MapInfo Professional, we recommend that you uninstall before upgrading.**

You must have Administrator rights to run the Installer on Windows XP.
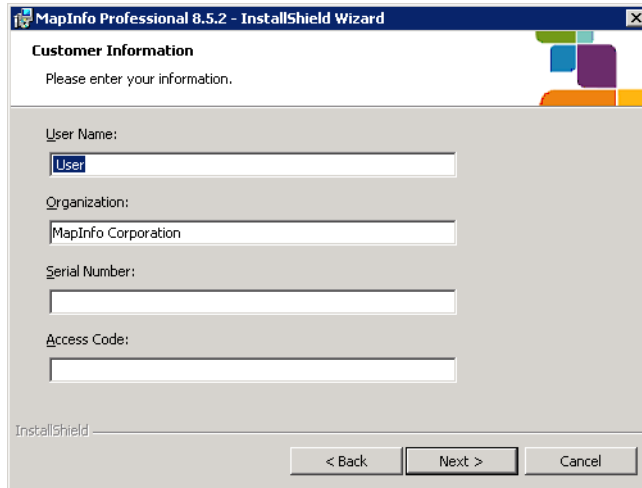
If your Windows **Start** menu does not have a MapInfo program folder, the installation process creates this folder. If your Windows **Start** menu already has a MapInfo program folder, this process creates a new MapInfo icon within that folder.

MapInfo Professional provides its application data files to each user. Called a Per-User install, this functionality runs the first time you run MapInfo Professional or MapInfo Professional client on a machine, and each time the MapInfo Professional Installer is run thereafter. The application data files include, among others, the Pen Styles file, Custom Symbols files, Graph Support files, and Thematic Legend templates. These files allow different users to have custom settings.

Note The Installer requires that your TEMP variable be set to a valid directory.
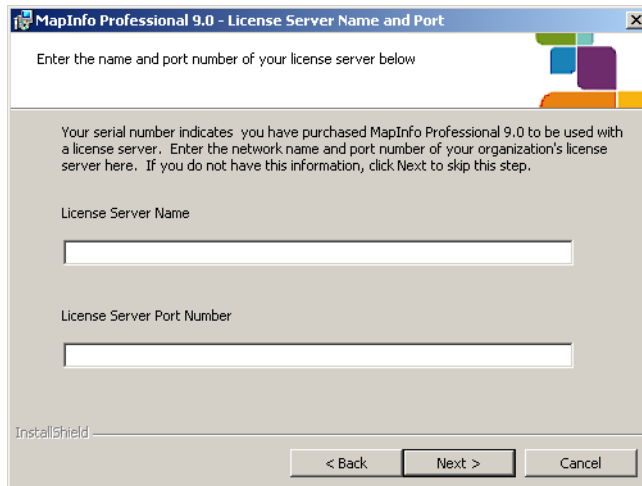
To install MapInfo Professional:

1. On the **Launcher** menu, click **Install Products** from the MapInfo Professional CD Browser.

2. Click **MapInfo Professional Installer**. The Install Shield Wizard dialog box displays. Click **Next** to continue the process and display the License Information dialog box and accept the terms of the agreement.

3. Click **Next** to continue. The Customer Information screen displays.

4. Type your name, organization name, serial number, and access code in the corresponding fields. The serial number and access code are listed on the Product Activation Information Card in the product box and are used to activate your product. Click **Next** to continue.

5. Do one of the following:
    *   If your organization purchased node-locked licenses, the third character of your serial number is "N". Skip this step and go to **step 6**. For more information, see **Node-Locked Licenses on page 18**.
    *   If your organization purchased concurrent licenses, the third character of your serial number is "S". In those cases, the License Server Name and Port dialog box displays on the screen.

If you know the license server name and port number, enter them here. If you do not, you can continue with the installation without filling in the license server name and port number. You will have another opportunity to supply this information when you start MapInfo Professional. For more information, see **Concurrent Licenses on page 27**. Click **Next**.

6. Review the following installation types and determine which instructions are appropriate. Click one of the following and click **Next** to continue:

    • **Typical Workstation Installation**. Click this option if you will be using MapInfo Professional as a desktop application including remote database access and connectivity. See **Typical Workstation Installation on page 15** to continue these instructions.

    • **Custom Workstation Installation**. Click this option to restrict the components that are installed by the installation program. For example, you can prevent the installer from adding the help system and tools. See **Custom Workstation Installation on page 16** to continue these instructions.

Typical Workstation Installation

Choose this option to install MapInfo Professional program files, Online Help, Tools, Universal Translator, and Crystal Reports. The ArcLink translation utility is not installed with this option.

CAUTION: **Make sure you have completed the directions in Installing MapInfo Professional on page 13 before beginning these instructions.**

To continue installing MapInfo Professional on a workstation:

1. In the Setup Type dialog box, click **Typical Workstation Installation**; the Destination Folder screen displays. If you have an earlier version (or versions) of MapInfo Professional installed and you do not want to overwrite that version, create a new directory name in the next step.

2. Do one of the following:

    • Click **Next** to accept the destination folder indicated

    • Click **Change** to create a new path in the Change Current Destination Folder dialog box. Type the new path in the **Folder name** field and click **OK** to continue. Click **Next** to continue.

    The Ready to Install the Program screen displays. Review your selections to ensure that the path is correct before moving on. Click **Back** to make changes.

3. Click **Install** to begin. A progress bar indicates the status of the process.

    Note   If you are using ODBC or Oracle Spatial for database connectivity, we install ODBC Connectivity and Oracle Spatial support by default to simplify the connectivity process.

4. When the InstallShield Wizard Complete screen displays, choose **Finish** to return to the Install Products screen.

    Note   When you open MapInfo Professional for the first time, the final installation and configuration process takes place automatically. See **MapInfo Licensing and Activation on page 18** before you begin using MapInfo Professional.

Custom Workstation Installation

Choose this installation type to select components and drivers within the MapInfo Professional installation program. This is particularly useful if you want to save disk space by not installing the Help System, the documentation, or the MapInfo Professional tools.

CAUTION: **Make sure you have completed the directions in Installing MapInfo Professional on page 13 before beginning these instructions.**

To continue installing using the custom workstation instructions:

1. In the Setup Type dialog box, click **Custom Workstation Installation**; the Custom Setup dialog box displays. A feature description, and the space required for the feature and its sub-features displays in the Feature Description area.

2. In the Custom Setup dialog box you decide what components are to be installed and the directory you want them to install to. Click the feature icon to select the feature for installation.

    The options for a Custom Setup include:
    *   **MapInfo Program Files**
    *   **Tools** (which refer to the MapInfo Utility Tools, Crystal Reports etc.)
    *   **Translators** (Universal Translators, ArcLink, etc.)
    *   **Help Files**
    *   **Documentation**

3. To select a feature, click the **Down Arrow** beside it; a menu displays.
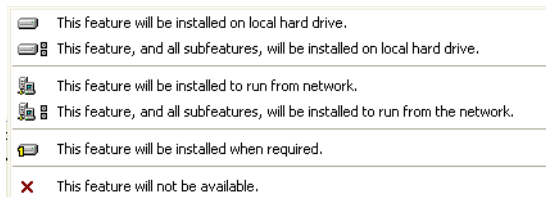
4. For each feature you want to install, select one of the following:
    *   This feature will be installed on local hard drive.
    *   This feature, and all subfeatures, will be installed on local hard drive
    *   This feature will not be available

    Note   For some features, there are additional options pertaining to the use of the feature from the network. Choose the option that describes your systems implementation of this feature.

    When you select the first or second options in the bullets described above, the feature installs on your local hard drive in the default folder. This path displays in the **Install To:** entry below the Custom Setup list pane. To specify another path, select **Change** button. When you do the Current Destination folder dialog box displays allowing you to choose a new path.

    To see if you have enough space on your hard drive or other mapped resources, click the **Space** button. The Disk Space Requirement dialog box displays the disk size, the amount of available space, and the amount of space the selected install would take.

    Note   To avoid installing a subfeature, select **This feature will not be available**.

5. After you select all the custom options click **Next** to display the Ready to Install the Program dialog box.

6. Click the **Install** button to begin the installation of MapInfo Professional with the features you selected. The Installing MapInfo Professional screen displays with a progress bar indicating the status.

7. At the end of the installation, the prompt: "Would you like to check our web site for any current updates to our product?" displays. If you have an Internet connection, click **Yes** to access the Pitney Bowes MapInfo Corporation web site containing information about product updates.

8. When the InstallShield Wizard Complete screen displays, choose **Finish** to return to the Install Products screen.

Note When you open MapInfo Professional for the first time, the final installation and configuration process takes place automatically.

Setting up MDAC

When installing MapInfo Professional, you can choose whether or not to install MDAC (Microsoft Data Access Components). Microsoft Data Access Components include various components: ActiveX Data Objects (ADO), OLE DB, and Open Database Connectivity (ODBC). If you are unsure whether or not to install the MDAC, consult with your network administrator. This choice allows IT administrators to manually install their own replacement modules for the MDAC. You must have MDAC, or a replacement, to connect to any databases.

Adding ODBC and OCI Drivers

After you add the ODBC and OCI drivers as part of the Typical Installation process, you can use the instructions in *Setting your Database Connection Preferences* in the *Help System* to set your database connection preferences.

You must have the OCI and ODBC drivers installed for MapInfo Professional to connect to remote databases. If you see the following messages, then you have installed the MapInfo DLLs for these features correctly but the drivers are missing:

OCI (Oracle Call Interface)
```
The MapInfo Oracle OCI Database driver (MIDLOCI.DLL) failed to load.
This is most commonly caused by not having an installation of Oracle's OCI
driver, which is necessary for the MapInfo Oracle OCI Database driver to
load.
To fix this issue, please install the Oracle OCI Database driver or rerun
the MapInfo Professional Installer to remove the MapInfo Oracle OCI
Database driver.
Clicking "OK" will allow you to run MapInfo Professional without the
ability to open Oracle tables through Oracle's Oracle Call Interface.
If you need more information, please contact Technical Support.
```

ODBC (Open DataBase Connectivity)
```
The MapInfo ODBC Database driver (MIDLODBC.DLL) failed to load.
This is most commonly caused by an incomplete installation of MapInfo ODBC
Connectivity Support. To fix this issue, please rerun the MapInfo
Professional Installer to repair or remove the MapInfo ODBC Connectivity
Support.
Clicking "OK" will allow you to run MapInfo Professional without the
ability to open remote database tables through ODBC.
```

```
If you need more information, please contact Technical Support.
```

A combined message displays if you attempt to add both of these options and neither of them have access to the appropriate database drivers.

MapInfo Licensing and Activation

This section describes the licenses available for MapInfo Professional and how to get started with the product according to the type of license your organization purchased.

MapInfo products have the following licensing schemes:

- Node-locked
- Concurrent
- Distributed

The serial number and access code that you enter during the installation indicates to MapInfo Professional what type of license you have. Depending on the license type, MapInfo Professional will guide you through activating the product (if your organization purchased node-locked licenses) or connecting to a license server (if your organization purchased concurrent licenses).

Node-Locked Licenses

Node-locked licenses enable you to run MapInfo Professional on a specific computer. If you purchased node-locked licenses, your installation of MapInfo Professional must be activated before you can use it. Activation is the process of acquiring a license from Pitney Bowes MapInfo. This section explains the activation options available for node-locked licenses.

Product Activation

MapInfo Professional uses the serial number and access code you supplied during the installation to activate the product. If you need to refer to these numbers again, the serial number and access code are located on the product box and on the Product Activation Information Card.

To activate MapInfo Professional:

1. Install MapInfo Professional, if you haven't already, and start the product. When you start MapInfo Professional for the first time after installation, the Activation Wizard launches. The MapInfo Professional Activation dialog box displays on the screen.
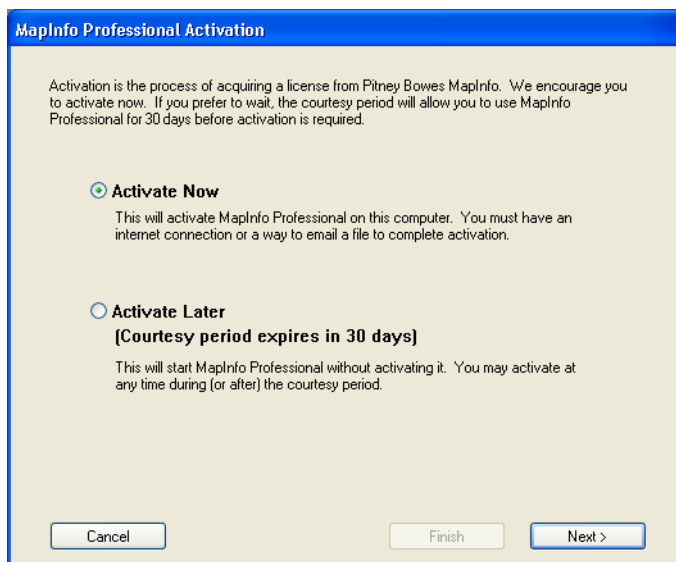
2. Select when you want to activate MapInfo Professional. Select one of the following:
   • **Activate Now**–Select this option to start activation now.
   • **Activate Later**–Select this options to start a 30-day courtesy period in which you can use MapInfo Professional without activating the product.

3. Click **Next**.

   If you selected **Activate Now**, go to step 4.

   If you selected **Activate Later**, the Activation Wizard closes and the courtesy period begins. The courtesy period enables you to use MapInfo Professional immediately and activate the product at a time that is convenient for you. Each subsequent time you start MapInfo Professional, a dialog box displays informing you of the time remaining in the courtesy period and giving you the opportunity to activate the product.

   You must activate MapInfo Professional sometime during the courtesy period to avoid interrupting your work. When the courtesy period ends, you will not be able to use MapInfo Professional until you activate it.

4. If you selected **Activate Now**, the Select Activation Method dialog box displays on the screen:

MapInfo Professional Activation

Select Activation Method

Select the appropriate activation method. Automatic Activation is the quickest and easiest method, but it does require an Internet connection.

⊙ **Automatic Activation (recommended)**

Select this option if you have an Internet connection on this computer. Automatic activation takes just a few moments.

○ **Email Activation**

Select this option if you do not have an Internet connection on this computer. This activation wizard will create a file which you must email to Pitney Bowes MapInfo.

[Cancel]   [< Back]   [Next >]

5. Select one of the following activation methods:

   • **Automatic Activation**– Select this option if you have an Internet connection. The Activation Wizard will make a one-time connection with a MapInfo server. Using the serial number and access code you provided during the installation, the Activation Wizard will retrieve one of the licenses your organization purchased and associate it with your computer.

   • **Email Activation**– Select this option if you do not have an Internet connection. The Activation Wizard will guide you through the creation of an Activation Request file that you must then email to Pitney Bowes MapInfo.

6. Click **Next**.

   If you selected **Email Activation**, go to step 7.

   If you selected **Automatic Activation**, the Activation Wizard takes a few moments to transfer the activation credentials to Pitney Bowes MapInfo and perform the activation. A MapInfo Activation message displays on the screen to tell you that the activation was successful.

   Click **OK**. The Activation Wizard closes, and MapInfo Professional is ready to use. You are finished.

7. If you selected **Email Activation**, the Verify Activation Credentials dialog box displays on the screen:
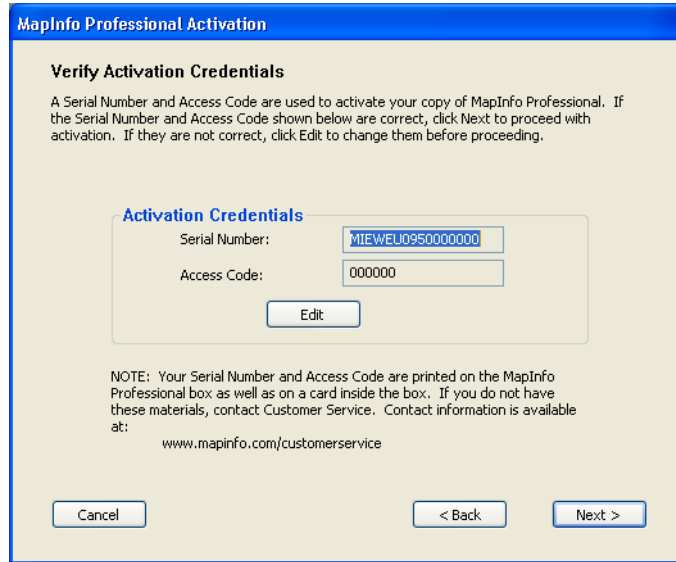
Double-check that your serial number and access code are correct. Click **Edit** if you need to make any corrections.

8. Click **Next**. The Specify location to save Activation Request file dialog box displays on the screen:
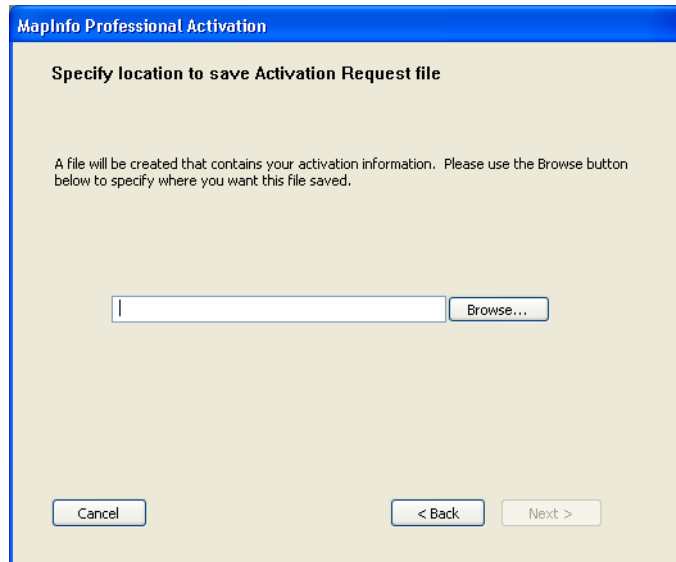
Select a folder in which to save the Activation Request file. Click the **Browse** button to navigate to the desired location. Click **OK**. The path and filename of the Activation Request file appear in the box. The Activation Request contains your serial number and access code, plus information that identifies the computer you are activating on.

9. Click **Next**. The Save this important Information dialog box displays on the screen.
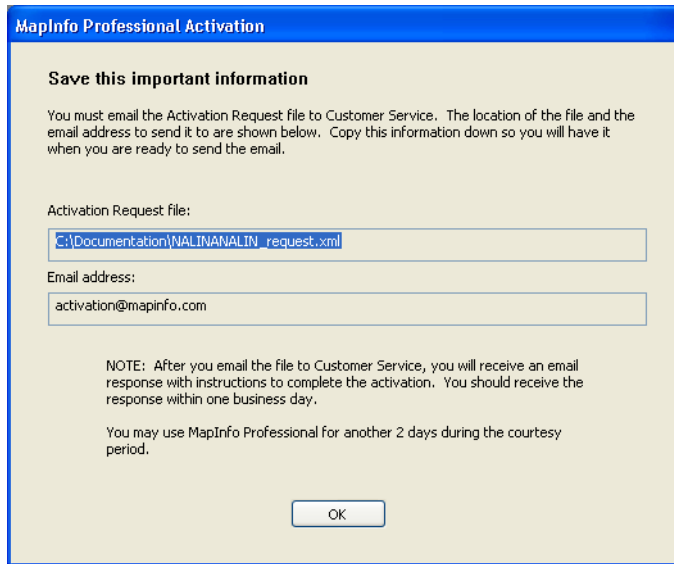
This dialog box provides the information to send your Activation Request file to Pitney Bowes MapInfo. The full path and filename of the Activation Request file is displayed in the **Activation Request File** box. The email address to send the file, activation@mapinfo.com, is displayed in the **Email address** box.

Take a few moments to write down the location of the Activation Request file and email address to send the Activation Request file.

CAUTION: **Please do not edit the Activation Request file in any way. If you do, Pitney Bowes MapInfo may not be able to process it and your activation will be delayed.**

10. Click **OK**. The Activation Wizard closes and the courtesy period automatically starts.

11. Email your Activation Request to Pitney Bowes MapInfo at this address:

   activation@mapinfo.com

You can finish email activation when you receive an Activation Response file from Pitney Bowes MapInfo. You should receive the Activation Response file within one business day.

Finishing Email Activation

When you receive the Activation Response file from Pitney Bowes MapInfo, you are ready to finish activating MapInfo Professional.

To finish email activation:

1. Copy the Activation Response file you received from Pitney Bowes MapInfo to an accessible folder on your computer and make note of the location.

2. Open MapInfo Professional. If MapInfo Professional is already open, exit and restart the program. A dialog box displays asking you if you want to finish activating MapInfo Professional.

3. Click **Yes**. The Process Email Activation Response dialog box displays on the screen.

4. Click **Browse** to navigate to the location of the Activation Response file. Click **Open** in the Locate Response file dialog box when you have located the file.

5. The path and filename of the Activation Response file appear in the box.
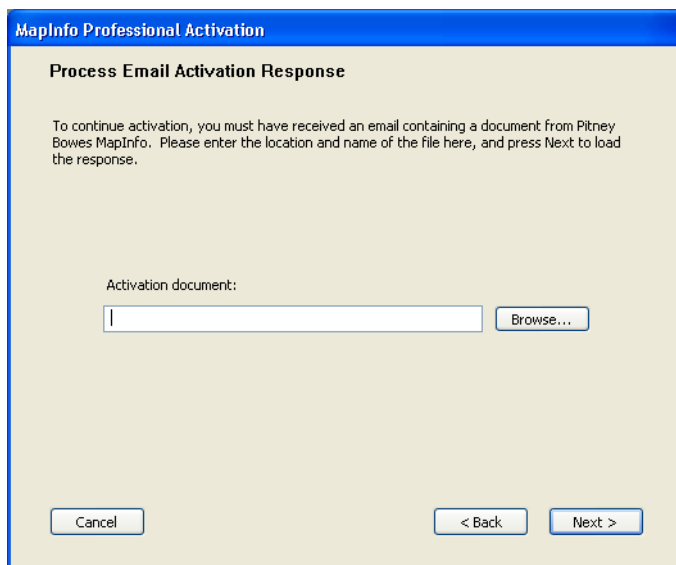
6. Click **Next**.

7. A MapInfo Activation message displays on the screen to tell you that the activation was successful. Click **OK**. The MapInfo Professional Activation Wizard closes, and MapInfo Professional is activated and ready to use. You are finished.

Note Once you have seen the confirmation message stating that your product has been activated, you can delete the email response file from your system.

To check the status of your activation, choose **Help > About** and review the contents of this dialog box.

Using MapInfo Professional While You Wait

While you are waiting for Pitney Bowes MapInfo to send you the Activation Response file, you can continue to use MapInfo Professional under the courtesy period. To ensure uninterrupted use of MapInfo Professional, we encourage you to activate before the courtesy period expires.

Each time you open MapInfo Professional subsequent to initiating email activation, a dialog box displays asking if you want to finish activating MapInfo Professional. When you receive the Activation Response file from Pitney Bowes MapInfo you are ready to finish activation.

To continue using MapInfo Professional under the courtesy period:

1. Click **No** in the dialog box.

2. A dialog box displays on the screen that provides information about the courtesy period and asks you how you would like to proceed.
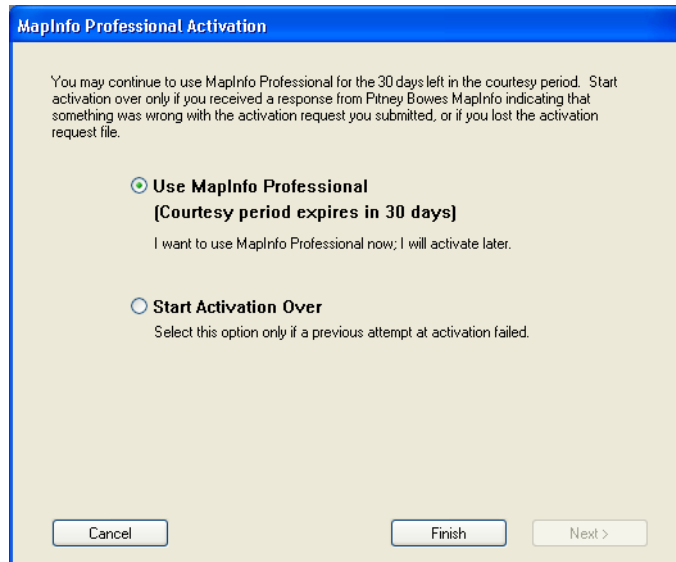
Select one of the following:

- **Use MapInfo Professional**–Select this option if you have not received an Activation Response file yet and you want to use MapInfo Professional under the courtesy period.
- **Start Activation Over**–Select this option if previous activation attempts have failed.

If you selected **Use MapInfo Professional**, click **Finish**. The Activation Wizard closes and MapInfo Professional is ready to use under the courtesy period. You can finish the activation at a later time.

If an earlier attempt to activate MapInfo Professional failed, and you selected **Start Activation Over**, click **Next**. The Activation Wizard restarts, giving you the opportunity to try the activation again.

Transferring a Node-Locked License

Node-locked licenses are associated with a particular computer. To use MapInfo Professional on a computer other than the one on which you have it activated, and without consuming another license, you can transfer your license from one computer to another. For example, you received a new computer at work and you want to run MapInfo Professional on the new computer instead of on the old one.

Before making any hardware changes to your PC (such as disk re-formatting) please remember to transfer your activated license back to Pitney Bowes MapInfo. After your hardware has been changed you may then re-activate your license.

Note   Your organization is limited to two license transfers per year, regardless of the number of licenses.

Transferring Your License to Another Computer

To transfer a node-locked license:

1. Open MapInfo Professional.

2. Choose **Help > Licensing > Transfer license**. The Transfer License Now dialog box displays.

3. Click **Yes**. The Select Transfer Method dialog box displays.

   Select one of the following transfer methods:

   • **Automatic Transfer**–Select this option if you have an Internet connection. Your license will be automatically transferred to Pitney Bowes MapInfo. You can retrieve the license by activating MapInfo Professional on another computer.

   • **Email Transfer**–Select this option if you do not have an Internet connection. You will be guided through the creation of a Transfer Request file, which you must then email to Pitney Bowes MapInfo.

4. If you selected **Email Transfer**, go to step 6.

   If you selected **Automatic Transfer**, the License Transfer Wizard takes a few moments to transfer the license to Pitney Bowes MapInfo. When this process is finished, a message displays on the screen informing you that the transfer was successful.

5. Click **OK**. MapInfo Professional closes and can no longer be run from this computer. The license is now available for you to activate MapInfo Professional on another computer.

6. If you selected **Email Transfer**, the Save Transfer Request File dialog box displays on the screen.
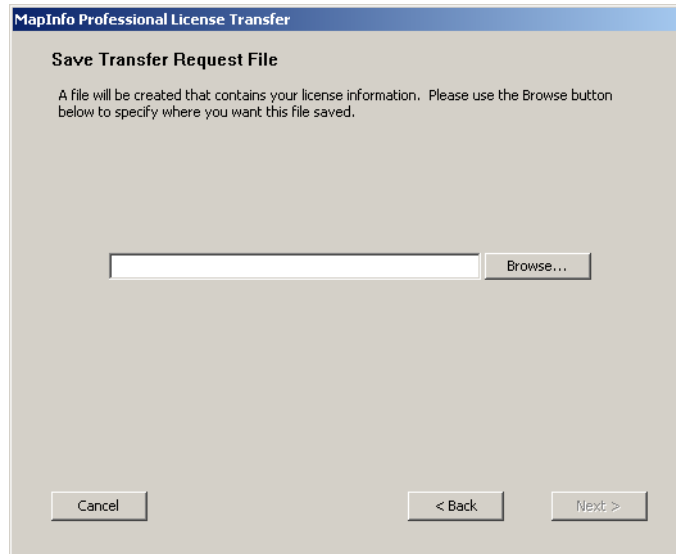
Select a folder in which to save the Transfer Request file. Click the **Browse** button to navigate to the desired location. Click **OK**.

7. Click **Next**. The Save this important information dialog box displays on the screen.

   This dialog box provides the information to send your Transfer Request file to Customer Service.

   The full path and filename of the Transfer Request file is displayed in the **Transfer Request File** box. The email address to send the file, activation@mapinfo.com, is displayed in the **Email address** box.

   Take a few moments to write down the location of the Transfer Request file and email address to send the Transfer Request file.

CAUTION: **Please do not edit the Activation Request file in any way. If you do, Pitney Bowes MapInfo may not be able to process it and your activation will be delayed.**

8. Click **OK**. MapInfo Professional closes and can no longer be run on this computer unless you activate it again.

9. Email the Transfer Request file to Pitney Bowes MapInfo at the following address:

   activation@mapinfo.com

10. Customer Service will send you an email reply confirming that the transfer was successful. You should receive this confirmation within one business day.

The license is now available for you to activate MapInfo Professional on another computer.

Uninstall Transfer Options

If you have a node-locked license and you uninstall MapInfo Professional, you have the option of transferring the license to Pitney Bowes MapInfo.

Note Before making any hardware changes to your PC (such as disk re-formatting) please remember to return the activated license back to Pitney Bowes MapInfo. After the hardware has been changed you may then re-activate your license.

If you intend to install MapInfo Professional on another computer, transfer the license to Pitney Bowes MapInfo so that the license is available. When you install MapInfo Professional on the desired computer, you will be prompted to activate the product.

If you intend to reinstall MapInfo Professional on the same computer, do not transfer the license. When you reinstall, you can reuse the same license without activating.

When you begin an uninstall of MapInfo Professional, the Transfer License Now? dialog box displays on the screen:

Do one of the following:

• Click **Yes** to transfer the license to Pitney Bowes MapInfo. The License Transfer Wizard will start and guide you through the transfer process. See **Transferring Your License to Another Computer on page 25**.

• Click **No** to keep the license on this computer. The uninstall operation continues. When you reinstall MapInfo Professional, you can reuse the license without activating.

Concurrent Licenses

Concurrent licenses enable you to install MapInfo Professional on any number of computers. A license server, installed and maintained by your organization, limits the number of computers that can run MapInfo Professional at any given time to the number of concurrent licenses purchased by your organization.

In the concurrent licensing scheme, you must connect to a license server on your network to check out a license before you can run MapInfo Professional. Checking out a license is the process of obtaining a license from the license server. You will need to supply the license server machine name and port number to connect to the license server. You can do this either during installation or the first time you run MapInfo Professional. After you have established a license server connection, the check out occurs automatically.

A license server administrator from your organization installs and maintains the license server. The license server administrator must also perform the following tasks:

• Activate the license server to make licenses available for check out.
• Inform users of the license server machine name and port number.

Connecting to a License Server

If your organization purchased concurrent licenses for MapInfo Professional, you will need to connect to a license server to run the product.

To connect to the license server, MapInfo Professional must have the license server name and port number. Your license server administrator will provide you with this information.

Connecting During Installation

The installation program will ask you for the license server name and port number. If you know them at install time, enter them. When you start MapInfo Professional, you will be connected to the license server and a license will be checked out automatically.

If you do not have this information at the time you install MapInfo Professional, the installation program will enable you to continue with the installation without filling in the license server name and port number. You will have another opportunity to connect to the server when you start MapInfo Professional.

Connecting After Installation

If you did not specify the license server name and port number during product installation, you will be prompted for that information when you start MapInfo Professional. You will also be prompted if MapInfo Professional cannot connect to a running license server using the server name and port number you provided at install.

To connect to the license server after you install MapInfo Professional:

1. Start MapInfo Professional. The Connect to License Server dialog box displays on the screen.
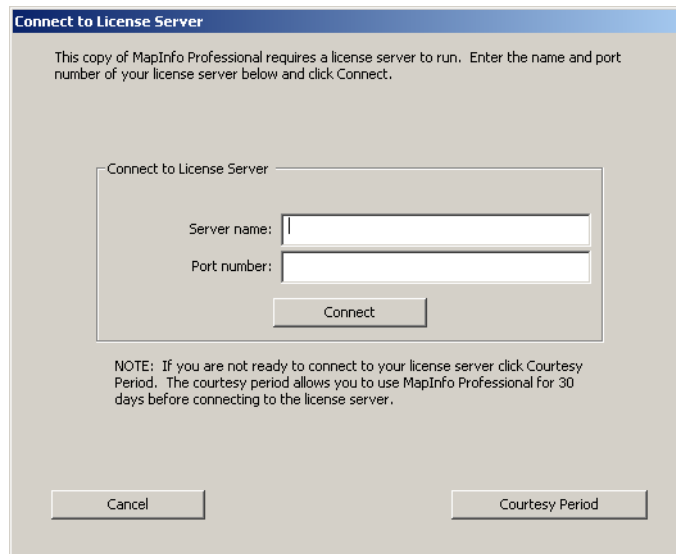
If you have the license server name and port number, proceed with these instructions. If you do not, see **Starting the Courtesy Period on page 28.**

2. Enter the license server name in the **Server name** box.

3. Enter the port number in the **Port number** box.

4. Click **Connect**. MapInfo Professional takes a few moments to connect to the license server and check out a license.

When the license is checked out, the Connect to License Server dialog box closes. You are finished. MapInfo Professional is licensed and ready to use. After you successfully connect to your license server once, a license will be checked out automatically when you start MapInfo Professional.

Starting the Courtesy Period

If you do not have the license server name and port number, but you want to start using MapInfo Professional, you can start a 30-day courtesy period during which you can use MapInfo Professional without connecting to the license server.

To use the courtesy period to run MapInfo Professional:

1. Open MapInfo Professional. The Connect to License Server dialog box displays on the screen.

2. Click **Courtesy Period**. A MapInfo Activation message displays telling you that the courtesy period started successfully.

3. Click **OK**. MapInfo Professional is ready to use under the courtesy period.

You can connect to the license server and check out a license when you receive the license server name and port number from your license server administrator.

Connection Failures

Failure to connect to the license server can occur for several reasons.

First, although you may know the license server name and port number, the license server administrator may not have had an opportunity to install it yet. In this case, MapInfo Professional cannot find the license server you specified. To use MapInfo Professional, you can start the courtesy period, and then connect when you know that the license server has been installed and is running.

Failures can also occur if the license server has been moved to a different computer. In this case, you were previously able to connect to the license server, but the license server was moved since the last time you used MapInfo Professional. MapInfo Professional is looking for the license server in its previous location. If MapInfo Professional cannot connect to the license server at startup, the Connect to License Server dialog will display on the screen. See **Connecting After Installation on page 27** for information. See your license server administrator for the correct license server name.

Finally, if all licenses have been checked out, you will not be able to run MapInfo Professional. You are able to connect to the license server, but you cannot check out a license because they are all in use. You will need to wait until a license becomes available before you can check out a license.

Borrowing a Concurrent License

Some concurrent licenses can be borrowed. Borrowed license enable you to use MapInfo Professional when your computer is not able to connect to your license server. For example, if you have MapInfo Professional installed on a laptop computer and you are going to be away from the office, you can borrow a license to use MapInfo Professional while you are away. Check with your license server administrator to find out if your concurrent license includes borrowing.

When you borrow a license, be sure to specify a borrow period that gives you sufficient time to use MapInfo Professional before the license expires. If the license expires before you have an opportunity to return it, the license is automatically returned to the license server. MapInfo Professional is unusable until you can connect to your network again and check out a license.

To borrow a license, the computer that you want to put the borrowed license on must have MapInfo Professional installed and be connected to the license server.

To borrow a license:

1. Open MapInfo Professional.
2. Choose **Help > Licensing > Borrow license**. The Borrow MapInfo Professional License dialog box displays on the screen.
3. Specify the number of days that you want to borrow the license. You can specify from one to 365 days.
4. Click **Borrow License**. After a few moments, MapInfo Activation message displays on the screen to tell you that the license was borrowed from the server successfully.
5. Click **OK**.

You can use MapInfo Professional on this computer while not connected to your network for the borrow period that you specified.

Returning a Borrowed License

To return a borrowed license, you must reconnect the computer that is using the borrowed license to your network. If it is not connected, the Return borrowed license command will not be available.

Note   Before making any hardware changes to your PC (such as disk re-formatting) please remember to return your activated license back to Pitney Bowes MapInfo or to the License Server. After your hardware has been changed you may then re-activate your license.

To return a borrowed license:

1. Reconnect the computer to your network.
2. Open MapInfo Professional. A dialog box displays to tell you on what date the borrowed license is going to expire.
3. Click **OK**.
4. Choose **Help > Licensing > Return borrowed license**. The Return borrowed license to license server dialog box displays on the screen.
5. This dialog box explains how a license is returned. Click **OK**.
6. A MapInfo Activation message displays on the screen to tell you that the license has been returned to the license server.
7. Click **OK**.

Silent Installation Procedures for System Administrators

Silent installations allow you to repackage MapInfo Professional for deployment within your company so your users do not have to enter user- or company-specific information, path information, a serial number, or an access code.

Note   You may also be interested in reviewing the new **Workgroup Installation Supports File Sharing on page 76** to use this installation model for deploying MapInfo Professional.

The MapInfo Professional installation setup.exe indicated in the steps below can be found on the installation CD (d:\) in this directory:

```
\Install\MI_PRO\DISK1
```

In general, the silent installation process goes like this:

1. Place the installation CD in the target computer's disk drive.
2. From the command line on the target computer, type:
   ```
   [drive and path to setup exe]:setup.exe /s /v"[Parameters for MSI]" for
       a silent installation"
   ```
   where PARAMETERS for MSI are the parameters you set to populate the msiexec .

   For example:
   ```
   d:"\Install\MI_PRO\DISK1\setup.exe /s /v"/qb
   INSTALLDIR=\"[PathTo]\MapInfo\OtherThanStandard\Professional 9.5\"
   USERNAME=\"MyUser\" COMPANYNAME=\"MyCompanyName\"
   PIDKEY=MySerialNumber ACCD=MyAccessCode"
   ```

Note   The command line parameters for the installer can not contain "~","/".

The parameter /qb tells the msiexec command to launch the install with a basic interface. That does not require any user action and allows the user to respond to the UAC in Vista.

There should be no space in between Variable=Content. A space is used as a separator in between parameters.

Parameters for user information:

USERNAME=User Name
COMPANYNAME=Company Name

Parameters for installation target information:

INSTALLDIR=Install Directory
ADDARC=True (Use this parameter to install ArcLink with application, not installed by default)
NOMDAC=True (Use this parameter to decline the installation of MDAC 2.8, installed by default)
CRYSTALRINST=False (Use this parameter to decline the installation of Crystal Reports, installed by default)

Parameters for licensing information:

PIDKEY=Serial Number
ACCD=Access Code
LSNAME=License Server Name
LSPN=License Server Port Number

Parameters for activating node lock and distributed licenses silently:

ACTLIC=True - for silent automatic NODE LOCK and DISTRIBUTED activate licenses
RETLIC=True - for silent return licenses
LICLOG=Filename for log files
BORROW=#days or True (If no specific number of days are entered, True is a valid input and results in a # of days)
SDRLYN=False (Use this parameter to see no license transfer dialog when the user uninstalls. The license stays on the system if not RETLIC=True).

Note Parameters ACTLIC and RETLIC are False by default.

For concurrent licenses the parameters for the license server name and license server port number must also be included:

1. Place the installation CD in the target computer's disk drive.
2. From the command line on the target computer, type:

   `"d:\Install\MI_PRO\DISK1\setup.exe /s /v"PARAMETERS"`
   where `PARAMETERS` are the parameters you set to populate the msiexec.
   For example:
   `"\Install\MI_PRO\DISK1\setup.exe /s /v"/qb`
   `INSTALLDIR=\"[PathTo]\MapInfo\OtherThanStandard\Professional 9.5\"`

Note All of the Microsoft supported parameters for working with the MSIEXEC command are documented on the Microsoft web site. Search the term "MSIEXEC command line parameters" to find this detailed information.

Look for the type of installation you want to perform from the options below and follow the corresponding instructions. In each of the install scenarios described below, the serial number and access code parameters are given in the following format:

- `PIDKEY=MI##############`
- `ACCD=######`

Substitute the appropriate serial number and access code when you perform the silent install.

Installing MapInfo Professional Silently on Vista Operating System

You cannot perform a completely silent install of MapInfo Professional on Windows Vista computers. The command-line options /q and /qn do not work on Vista. These options turn off the user interface during the installation, which suppresses the Windows Vista User Access Control (UAC). Users must interact with the UAC to provide the necessary credentials to run the installation as an administrator. If the user interface is turned off, the installation is terminated without warning because the UAC cannot gather the appropriate credentials.

To work around the problem, use the /qb option in the command line when you run the silent install. This option gives the installation a basic user interface and allows the UAC to display on the screen.

To perform a silent install on a Windows Vista computer using the /qb option:

1. Place the installation CD in the target computer's disk drive.
2. From the command line on the target computer, type:

   ```
   "d:\Install\MI_PRO\DISK1\setup.exe" /s /v"/qb USERNAME=\"MyUser\"
   COMPANYNAME=\"MyCompanyName\"PIDKEY=MI############## ACCD=######"
   ```
   where:
   ```
   PIDKEY=MI############## is the product serial number
   ACCD=###### is the access code
   ```
3. When User Access Control displays on the screen, click **Allow**.

For concurrent licenses, the license server name and port number parameters must be included:

```
LNAME="LicenseServerName"
LSPN="LicenseServerPortNumber"
```

Substitute the appropriate license server name and port number when you perform the silent install.

Installing ArcLink Silently with an Initial Dialog Box Only

To initiate a silent install with an initial dialog box that installs ArcLink:

1. Place the installation CD in the target computer's disk drive.
2. From the command line on the target computer, type:

   ```
   "d:\Install\MI_PRO\DISK1\setup.exe" /s /v "/qb PIDKEY=MI##############
      ACCD=###### ADDARC=TRUE"
   ```

This process runs the Smartupdate at end of installation. If you do not want the Smartupdate to run, type:

```
set RUNSU = FALSE
```

at the end of the command line.

For concurrent licenses, the license server name and port number parameters must be included:

```
LNAME="LicenseServerName"
LSPN="LicenseServerPortNumber"
```

Substitute the appropriate license server name and port number when you perform the silent install.

Installing Data

To help you get started, Pitney Bowes MapInfo provides you with some United States-based and world-wide maps you can use as a background to your data. Use these instructions to install this free data.

To install the free data provided with MapInfo Professional:

1. Choose **Install Products** from the CD Browser.
2. Choose **Free Data** to display the MapInfo Professional Data screen. In this screen, you can also review the data specifications, access new data over the web and learn about what data is available from Pitney Bowes MapInfo Corporation.
3. Choose **Install Free Data**. The Welcome screen displays.
4. Choose **Next** to continue. The License Information screen displays.
5. Choose **Yes** to accept the terms of the agreement and to continue the installation process. The Choose Destination Location screen displays.
6. Select the product for which you will be installing the data and click **Next** to continue:
   • MapInfo Professional
   • MapInfo Run Time
7. Specify the directory where the data will be installed. Use the **Browse** button to select a directory if necessary or accept the default directory. Click **Next** to continue.
8. Choose one of these options:
   • **Custom Install***:* Choose which datasets to install. Select the check box beside each dataset you want to install. The size of each dataset displays, as well as space required and space available.
      To see the subcomponents of the data you selected, click **Change**.
   • **Typical Install***:* Install all datasets.
      Choose **Next** to continue. Respond **Yes** to the "Would you like setup to display workspace Icons" prompt if you want to create an icon for each data set you choose.
9. The **Select Program Folder** screen displays if you chose to set up Workspace icons. Select the program folder where the icons will be created. Choose **Next**.
10. The **Start Copying Files** screen displays. Review the selections you have chosen and click **Back** to return to any screen to change your selections. When you are ready to begin the installation, click **Next**.
11. The Setup Complete dialog box displays; click **Finish**.

Getting More Data

To learn more about our data products, click the **Get More Data** option in the MapInfo Professional Data screen during the Data Installation process or click **MapInfo Data Products on the Web** in the **Help** Menu. If you have a Browser installed, you will be automatically connected to Pitney Bowes MapInfo Corporation's web site, where we provide detailed information about our World Wide Data Products. We have over 350 data products to choose from—products that provide both reliable and current information.

Installing Related Programs, Hardware, and Resources

This section contains the instructions for installing the ECW Compressor, the Blue Marble GPS, and the documentation associated with MapInfo Professional. We also include information about the Microsoft IntelliMouse and how to use it.

Installing the ECW Compressor

The ECW raster handler allows you to open and display raster images compressed in the ECW format. We recommend that you exit all Windows programs before installing.

1. Choose **Install Products** from the MapInfo Professional CD Browser.
2. Choose **ECW Compressor**. The Welcome screen displays. Choose **Next** to continue the installation process.
3. The Software License screen displays. Choose **Yes** to accept the terms of the agreement and to continue the installation process.
4. The Choose Destination Location screen displays. Specify the directory where ECW Compressor will be installed.
5. The Select Program Folder screen displays. Select a folder. Choose **Next** to continue.
6. The Setup Complete screen displays: choose to display the ReadMe file and/or create a shortcut on your desktop. Choose **Finish**.

Using the Microsoft IntelliMouse™ to Move Around the Windows

MapInfo Professional supports the Microsoft IntelliMouse™ as follows:

Document Scrolling: In the Map, Layout, Browser, and MapBasic windows, hold down the **Ctrl** key and move the wheel to scroll the document vertically; the effect is the same as clicking on the arrow at the end of the scroll bar.

Document Panning: In the Map and Browser windows, hold down the **Wheel** button on the IntelliMouse™ and move the mouse to pan the document. Release the button to end the panning. There are three panning speeds. The speed of the panning is based on the cursor's distance from the starting point, indicated by the origin mark. In the Map window, the distance moved at each speed is a percentage of the zoom distance.

For example, the amount to move at slow speed is. 005 * ZoomDistance, medium speed is. 01 * ZoomDistance, and super speed is .1 * ZoomDistance. In the Browser, the window is scrolled by 1, 3, and 7 lines or columns for slow, medium and super speeds. When the cursor is within 15 pixels of the starting point, there is no panning.

AutoScroll: In the Map and Browser windows, click and release the **Wheel** button to activate AutoScroll. When the mouse cursor is moved away from the starting point the document starts to scroll in whatever direction you move the mouse. When the cursor is returned to the starting point, scrolling stops. AutoScroll is turned off by any mouse click or key stroke. AutoScroll is also turned off when MapInfo Professional loses the focus, for example, when you **Alt-Tab** to another application.

Zoom: In the Map and Layout windows, move the wheel forward to zoom in on the document. Roll back the mouse wheel to zoom out on the document. The wheel has a series of settings; each "click" is the same as one click with a zoom tool. The mouse wheel does not recenter the view. There are other keyboard commands that allow you to zoom in and out more precisely.

Installing Global Positioning Software (GPS)

To install Global Positioning Software from Blue Marble:

1. From the CD menu, click **Install Products** and then **Free Utilities**.
2. Click **Install GPS Support**. You will be prompted to exit all applications before installing. Choose **OK**.
3. The MapInfo Special Edition dialog box displays. Choose **OK**.
4. The Select Destination Location screen displays. Specify the directory where GPS will be installed.
5. The Software License screen displays. Choose **YES** to accept the terms of the agreement and to continue the installation process.
6. The Add to the Start Menu dialog box displays: click **Yes** to add a shortcut to the **Start** menu.
7. The ReadMe displays; choose **OK** to exit the ReadMe.

Installing the Online References

MapInfo Professional provides the following online reference documents: MapInfo Professional *User Guide*, MapBasic *Reference Guide*, Crystal Reports *User's Guide*, ArcLink, and EasyLoader documentation, as well as the Adobe Acrobat Reader. These documents are installed in the Documentation subfolder of your installation directory.

Note If you have any questions about the use of the Acrobat Reader, contact Adobe support at **www.Adobe.com.**

Troubleshooting your Installation

The Installer must be run from a drive with a letter such as G: and not from an explicit UNC path. For example, you might have the MapInfo Professional CD in your computer as USERSPC. Other users may share this device as USERSPC; however, it would not contain a drive letter. The MapInfo Professional Installation program requires a drive letter.

To remedy this situation, map your network drive to a specific drive letter:

1. In Windows Explorer, right-click the shared directory or CD-ROM that contains the MapInfo Professional SETUP.EXE and select **Map Network Drive**.
2. Choose a drive letter to map.
3. Run the Installation Program again from the newly mapped drive letter.

Modifying or Removing MapInfo Professional

Use the Program Maintenance feature of the CD Browser to modify, repair, or remove MapInfo Professional.

To access Program Maintenance:

1. Click **Install Products** from the MapInfo Professional CD Browser.
2. Click **MapInfo Professional**. The Welcome screen displays. Choose **Next**. The Program Maintenance screen displays.
3. Choose modify, repair, or remove MapInfo Professional based on your needs.
   - Click **Modify** to display the Custom Setup dialog box.
   - Click **Repair** to repair installation errors in the program.
   - Click **Remove** to remove an existing copy of MapInfo Professional from your system. The installer displays the Remove the Program dialog box. Click **Remove** to uninstall the product's programs from your system.

   You can also access the Program Maintenance screen from the **Start** menu by clicking **Control Panel** and then **Add/Remove Programs** and finally **MapInfo Professional**.

   For information on node-locked license transfer options at uninstall, see **Uninstall Transfer Options on page 26**.

Controlling Advanced System Settings

MapInfo Professional has some advanced system settings that cannot be configured through a dialog box. These settings allow you to control several low-level, technical aspects of how MapInfo Professional runs. Most users do not need to worry about these advanced settings.

For example, MapInfo Professional has a Dynamic Data Exchange (DDE) time-out setting, which controls how long MapInfo Professional tries to communicate with other applications during DDE communications. If you run a MapBasic application, and that application encounters time-out errors during DDE, you may want to increase the DDE time-out setting. To modify one of MapInfo Professional's advanced system settings (such as the DDE time-out setting), use this procedure.

Modifying the Windows Registry

MapInfo Professional stores system settings in the Windows registry. To edit the Windows 2000 registry, use the REGEDT32 program.

CAUTION:　**Be very careful when editing the registry; damaging the registry can cause serious problems in your operating system.**

For example, to set MapInfo Professional's Dynamic Data Exchange (DDE) time-out setting, locate the following key in the registry:

    HKEY_LOCAL_MACHINE\SOFTWARE\MapInfo\MapInfo\Common

Within that key, edit the DDeTimeout value. If there is no value by that name, create a new value of type string, and assign the name DDeTimeout to the value. Set the value's data to be a number, representing the number of milliseconds (for example, enter 30000 to specify a time-out of 30 seconds). For more on editing the registry, see the online help for REGEDIT or REGEDT32.

Descriptions of Advanced Registry Settings

This section describes advanced settings that are stored in the registry.

DDeTimeout = *number*
This setting controls MapInfo Professional's time-out setting in DDE conversations where MapInfo Professional is the client (the application that initiates a conversation). The *number* represents milliseconds. The default value is 10,000 milliseconds (ten seconds). If you run a MapBasic application that attempts to initiate a DDE conversation, but the conversation fails because the server application does not respond within the time-out period, you may need to increase the DDeTimeout number.

OffscreenBitmap = *number*
The *number* is 0 (zero) or 1 (one). A value of 1 (the default) indicates that MapInfo Professional will process off-screen bitmaps when drawing a map. This means that if you cover a Map window, and then bring the Map window to the front again, the map redraws instantly. If you set this setting to zero, MapInfo Professional will not process off-screen bitmaps. This means that when you bring a Map window to the front, MapInfo Professional will redraw the map. If you are using a video driver that is problematic, and encounter video problems with Map windows, you may eliminate those problems by setting the OffscreenBitmap number to 0.

MaxFiles = *number*
This setting must be an integer from 10 to 507, indicating how many files MapInfo Professional can open simultaneously. This setting does not limit the number of tables you can open, but it does limit the number of tables you can edit at one time (the number of tables that have unsaved edits). The default value is 29. If you need to work with more files simultaneously, set *number* to 507.

MaxORACLETILES = *number*
A value from 0 = unlimited tiles to infinity.

Improving Performance for MapInfo Professional

To improve MapInfo Professional's performance, you can increase the speed of the processor in the machine. A video accelerator card will increase the speed of the redraw. It will not speed up the initial draw of the map, but all subsequent redraws will be faster. A faster disk cache will also improve performance, as will adding memory.

Controlling the Location of Application Data Files During Installation

By default, the setup program for MapInfo Professional installs application data files to locations that make sense for the typical user. After installing the product, the user is free to move one or more of the application data files to another predefined location and MapInfo Professional will find that file. For example, the administrator of a machine might move MAPINFOW.PEN from the per user area (its default location) into the install directory so all users on that machine will share the same set of pens. For IT personnel responsible for a large number of MapInfo Professional installs it is not practical to manually move application data files to realize the desired configuration.

To solve this problem, create a setting file, MODE.INI, to specify the location of application data files prior to installing MapInfo Professional.

1. Copy the installation files to a read-write location.
2. Create a MODE.INI file in the root directory of the installer.

Code	Description	Location
1	per user, roaming	\<Current User>\Application Data
2	per user, not roaming	\<Current User>\Local Settings\Application Data
3	per machine	\<All Users>\Application Data
4	program directory	\<Install Dir>

3. Open MODE.INI into any text editor.

4. Edit MODE.INI, modifying the code associated with the application data file/folder whose location you wish to change.

5. Install MapInfo Professional.

The following is a list of predefined locations for application data files supported by MapInfo Professional, and the corresponding numeric code to be used in MODE.INI.

The following is a list of application data files/groups and their default locations:

Filename	Default Location
MAPINFOW.CLR	per user, roaming
MAPINFOW.PEN	per user, roaming
MAPINFOW.FNT	per user, roaming
MAPINFOW.ABB	program directory
MAPINFOW.PRJ	program directory
MAPINFOW.MNU	program directory
CustSymb	per user, roaming
ThmTmplt	per user, roaming
GraphSupport	per machine

MODE. INI File Example

Create a text file with the following syntax:

```
GraphSupport = 3
CustSymb = 1
ThmTmplt = 1
MAPINFOW.CLR = 1
MAPINFOW.FNT = 1
MAPINFOW.PEN = 1
MAPINFOW.ABB = 4
MAPINFOW.PRJ = 4
MAPINFOW.MNU = 4
```

Removing MapInfo Professional from your System using Control Panel

Remove MapInfo Professional by accessing the CD Browser, Program Maintenance screen, or by choosing the Add/Remove Programs option in the Control Panel in Windows 2000 or Windows XP.

• For more information, see *Removing MapInfo Professional from your System using the CD Browser* in the *Help System*.

Configuring the MapInfo Professional Preferences

Preferences allow you to change a number of default settings, enabling you to customize certain aspects of the program's behavior. Preference files are stored on a per-user basis. As you gain experience with MapInfo Professional®, you will probably want to change some of these settings. This chapter discusses the various preferences and what they control.

Here is a brief description of the preference categories:

System Settings – Controls what information is copied to the clipboard, color defaults, aspect ratio, paper and layout units, the number of Undo objects permitted, how symbol types used prior to version 4.0 are drawn, and how MapInfo Professional handles 2-digit years.

Map Window – Sets the default Map window options; moving duplicate nodes; snap tolerance; units for distance and area; display of scroll bars in the Map window; display of degrees in either decimal or degrees, minutes, seconds form; and the display of InfoTips.

Layout Window - Sets the Layout window preferences to display Rulers, Page Breaks, and to determine the display options of frame contents.

Legend Window – Sets the legend frame default settings.

Startup – Controls whether the program saves the MAPINFOW.WOR upon exiting and loads it upon start up; whether queries are saved in workspaces; and the display of the Quick Start dialog box upon startup.

Address Matching – Controls the house number placement when specifying street addresses.

Directories – Specifies default directories for opening and saving tables, workspaces, MapBasic programs, import files, ODBC SQL queries, theme templates, graph support files, saved queries, new grids, and Crystal Report files. Also specifies the directories MapInfo Professional searches for tables without fully qualified paths referenced in workspaces or MapBasic programs.

Output Settings – Controls the on-screen display of a raster file, the printer output, and exporting choices.

Printer – Controls which printer information is used for all new windows. This printer can be the Windows default printer, or a printer you designate as your MapInfo Preferred printer. This choice can be overridden on a per window basis using either the Print or Page Setup dialog boxes.

Styles – Sets the default object styles for region, line, symbol, and text objects.

Web Services – Sets refresh, timeout values, server options and other default settings for Proxy Servers, WMS, WFS, Geocode Servers, and Drivetime server web services.

Image Processing - Sets the rules for raster reprojection allowing you to choose whether reprojection is allowed, when, and allows you to select resampling options.

Setting the Preferences

To set a preference:

1. On the **Options** menu, click **Preferences** to display the Preferences dialog box.
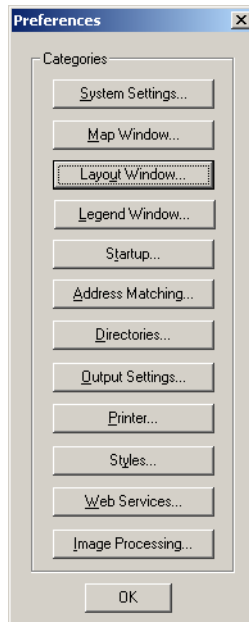
2. Click one of the preference buttons to display the specified preferences dialog box.
3. Set your preferences in that dialog box and click **OK** to save them and return to the Preferences dialog box.
4. Click **OK** to close the Preferences dialog box.

What follows in this section are details to assist you in setting your preferences.

Setting your System Preferences

Use the System Settings Preferences dialog box to control the default settings that affect how MapInfo Professional interacts with your system.

To set your system settings preferences:

1. On the **Options** menu, point to **Preferences** and click **System Settings** to display the System Settings Preferences dialog box.
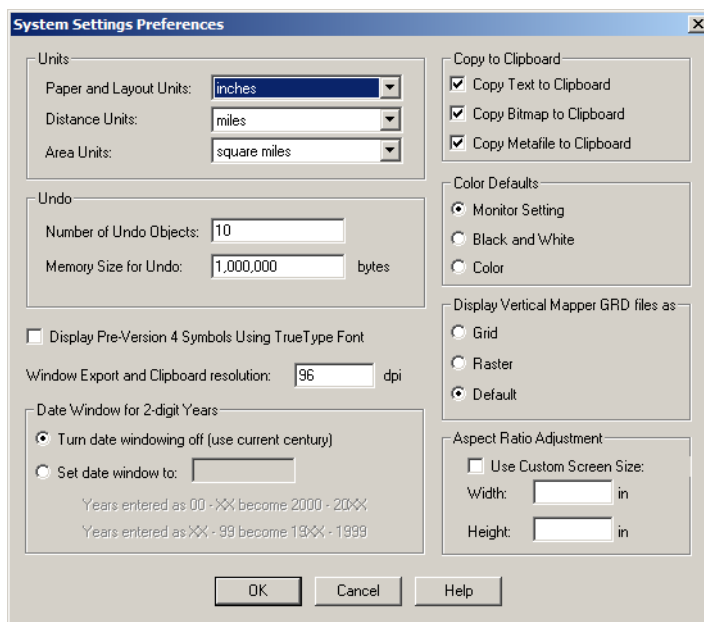
2. Select the appropriate system preferences for your implementation of MapInfo Professional. Click **OK** to save them.

    Setting the Units

    *   **Paper and Layout Units** — Specify the Paper and Layout Units used when you measure the size of objects in a **Layout** window and the size of paper in the Print dialog boxes. The default is set to inches. You can choose: inches, picas, points, millimeters, and centimeters.
    *   **Distance Units** — Specify the units that you want to use to indicate distance in the application by selecting **US Survey feet, yards, rods, chains, miles, nautical miles, millimeters, centimeters, meters**, or **kilometers**.
    *   **Area Units** —Specify the area units you want to use in the application by selecting **square inches, square links, square feet, square yards, square rods, perches, square chains, rods, acres, square miles, square nautical miles, square millimeters, square centimeters, square meters, hectares**, or **square kilometers**.

    *Copying to the Clipboar*d

    *   **Copy Text/Bitmap/Metafile to Clipboard** — Click the **Copy to Clipboard** check boxes to specify whether to copy text, bitmap, and metafile items to the Clipboard. All three are copied to the Clipboard by default. Clear the appropriate check box(es) to prevent the item from being copied to the clipboard.

Setting the Undo Options

- **Number of Objects** — You can only undo the last action. Set this option to the number of objects in the last action you want the system to undo. For example, if you moved 10 objects at the same time and enter 10 in this field, MapInfo Professional restores all 10.

Note You cannot use the Undo capability for the following operations: Revert, Save, Save As, or Modify Table, or any operations whose effects are primarily cosmetic.

The default is 10 objects. You can set it from 0 to 800. Setting the number of objects to 0 deactivates the system. After you use the Undo option, the system toggles to **Redo**.

- **Memory Size for Undo** — Type the number of bytes of memory you want to set aside for the Undo feature. This entry is set to 1,000,000 bytes by default. You can enter up to 10,000,000 bytes into this field. Increasing this entry may result in slower response time.

Setting the Color Defaults

Select one of the Color Defaults preferences described below to control how MapInfo Professional shades thematic map layers.

- By default, **Monitor Setting** is selected. MapInfo Professional uses the color settings of the monitor to shade the map when this option is selected.
- Click the **Black & White** radio button if you are using a color monitor and want to shade your thematic map in gray-scale.
- Click the **Color** radio button if you are using a black and white monitor and want to print a thematic map in color on a color printer.

Display Pre-Version 4 Symbols using the True Type font — Select this check box to indicate how you want to draw symbols from early versions of MapInfo Professional (before 4.0). Select this check box to draw vector symbols with characters from the MapInfo Professional Symbols font. By default, vector symbols are drawn.

Window Export and Clipboard Resolution — To set the image resolution for exporting and Clipboard purposes, type the resolution in this field. MapInfo Professional uses this preference whenever you copy windows to the Clipboard, export your work to metafile and raster formats and the Save Window As export process as well. If you do not set this resolution manually, the product assumes 96 DPI. The maximum setting for this field is 1200 DPI.

Display Vertical Mapper grd files as — Use this option to determine how to display Vertical Mapper GRD files within MapInfo Professional. These options allow you to display your Vertical Mapper GRD maps as grid files and not as raster files. Vertical Mapper creates GRD\TAB files that display using the raster handler. This preference contains a Grid option, so that Vertical Mapper grid files use the Info tool and displays file information in 3D windows.

- Click **Grid** to display GRD files as grid files and get the added support of the MapInfo Professional toolbar features.
- Click **Raster** to display the GRD files as raster images.
- Click **Default** to treat the GRD files as rasters or grids depending on existence of the Rasterstyle 6 1 code in the TAB file. If the code does not exist, the file opens as a raster file, if the code does exist, the file opens as a grid file.

Date Window for 2 Digit Years — Select the appropriate Date Window for 2-Digit Years option for your purposes:

- Click the **Turn date windowing off** radio button to use the current century for all 2-digit years. This option is selected by default.
- Click the **Set date window to** radio button to refer to dates in both the current century and the previous century. You need to use this setting if your data uses dates in the 1900s.

  For example, if you type the number 30 in the **Set date window** field, 2-digit years from 00–29 are set in the 21st century (2000-2029), and 2-digit years from 30–99 are set in the 20th century (1930-1999).

Setting the Aspect Ratio Adjustment

- **Aspect Ratio Adjustment** — Select the Aspect Ratio Adjustment options so that your map maintains the appropriate aspect ratio on your screen. Enter the dimensions of your screen in these fields.

Setting your Map Window Preferences

The Map window preferences control the default settings for any new Map window created in MapInfo Professional. You can override some of these preference settings for the current Map window in the Map Options dialog box (on the **Map** menu, click **Options**). These include the settings for resizing Map windows, specifying distance/area calculations, and displaying coordinates in degrees, minutes, seconds.

To set the Map Window preferences:

1. Choose **Options** > **Preferences** > **Map Window** to display the Map Preferences dialog box.
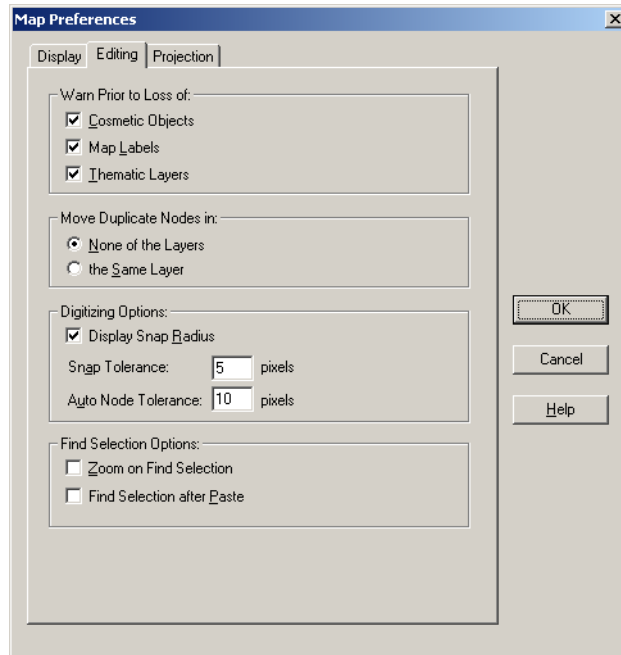
2. In the Display tab, select from these options:

- Set the **When Resizing Map Window** options to control the default behavior of Map windows when you resize them. Select one of these options:
  - Click the **Fit Map to New Window** to draw the map to fit the resized window. You see the same view of the map that you saw before you resized the window. This is the default setting.
  - Click the **Preserve Current Scale** button to change the view of the map when the Map window is resized. As you shrink or enlarge the window, you will see a smaller or larger area of the map.

  This setting does not affect Map windows that are already open. To override the preference settings for the currently open Map window, make different selections in the Map Options dialog box.

- Select the **Apply Clip Region Using** settings to specify how you want the product to clip regions. Select one of these three choices:
  - **Windows Device Clipping (all objects)** – The clipping is controlled by the Windows Device Display. All objects (including points, labels, text, raster and grid images) will be clipped at the Clip Region boundary. This is the default setting.
  - **Windows Device Clipping (no points, text)** – Use this method to emulate the Erase Outside clipping method. All objects are clipped using Erase Outside except points and labels. Points and labels will be completely displayed only if the point or label point lies inside the Clip Region object. Text objects, raster files, and grid files always display and are never clipped.
  - **Erase Outside (no points, text)** – This method uses the Erase Outside functionality. The Clip Region object is the Cutter object, and all other objects are Target objects for this operation. All objects are clipped using Erase Outside, excepts points and labels. In addition, points and labels will be completely displayed only if the point or label point lie inside the Clip Region object. Text objects always display and are never clipped.

- Other display options include
  - **Scrollbars** — To display scrollbars, select the **Scroll Bars** check box. By default, MapInfo Professional does not display scrollbars in Map windows.
  - **Autoscroll** — To scroll the layout automatically, select the **Autoscroll** check box.
  - **Show InfoTips** — To display one or two word tips when you cursor over a button, select the **InfoTips** check box. By default, MapInfo Professional displays InfoTips. Clear the **Show InfoTips** check box to deactivate their display.
  - **Show ToolTips in Layer Control Dialog** — To display detailed layer information in the Layer Control dialog box, select this check box. If you do not want to see this level of detail, clear this check box.
  - **Automatic Raster Zoom Layering** — To choose the default mode for automatic zoom layering for raster layers, select this check box. Raster zoom layering is turned on by default.
  - **Automatic Grid Zoom Layering** — To choose the default mode for automatic grid zoom layering when adding a grid layer to the map, select this check box. Automatic Grid Zoom Layering is turned off by default.
  - **Use Cartographic Scale** — To display your maps in Cartographic Scale automatically. When you make this change, the options that display in the Change View, Map Print Options and Frame Object dialog boxes use the cartographic scale on which the selected map is based and a scale indicator displays in the Status Bar.
  - **Draw Layers Under Themes** — This option sets the default behavior for the **Replace Layer Style** check box in both the Ranges and Individual Value Theme dialog boxes. Select this

check box to clear the **Replace Layer Style** check box by default. Clear this check box to select the **Replace Layer Style** check box by default.

- **Automatically Open Default Theme** — This option saves the theme to the table's metadata so that the theme displays each time you open the table. This check box is cleared by default.

- **Enable Hardware Acceleration for 3DMap Windows** — Select this check box to use your video card acceleration capability to display 3DMaps. Clear the box to display the 3DMap without using your video card acceleration capability. Turning the acceleration off reduces performance, but it avoids failure with certain graphic adapters and drivers.

- **Handler for New Grids** — Select the output grid file format. By default, MapInfo Professional uses the MapInfo Professional handler (*.MIG). The available formats depend on which grid handlers are installed. When you change the grid file format, the file extension on the grid file name changes to reflect the selected format.

3. In the Editing tab, select from these options:

- Set the **Warn Prior to Loss** options to display warning messages before you leave the currently open map window and lose cosmetic objects, map labels, and thematic layers you have created. After the warning, you can save these objects, labels and layers as part of a table or workspace. These boxes are selected by default.

  You can turn off the display of these warning messages by clearing the desired check boxes from the Warn Prior to Loss of group.

- Select the **Move Duplicate Nodes in** settings to specify whether MapInfo Professional will move duplicate nodes when you use the **Reshape** command (on the **Edit** menu, click **Reshape**) to edit objects that are adjacent to each other, such as regions. Select one of these options:

  - Select the **None of the Layers** button to prohibit the product from moving duplicate nodes. This is the default setting

  - Select the **Same Layer** button to move duplicate nodes that are in the same layer when one of the connected nodes is moved.

- Digitizing Options include:

  - **Display Snap Radius** — Select this option to set the **Snap Tolerance** and **Auto Node Tolerance** to make the snap radius larger or smaller. If you clear the **Display Snap Radius** option**,** the radius does not display when the snap mode is turned on.

  Type the appropriate **Snap Tolerance** and **Auto Node Tolerance** settings to specify the default tolerance in pixels within which Snap to node and Auto Node features operate. You use these settings when you draw objects (click the **S** key to turn Snap to node on). The default is 5 pixels. Enter a smaller value to obtain a tighter tolerance, and avoid snapping to other objects' nodes as you draw. Enter a larger value to obtain a looser tolerance, when you want to snap to a node even though you are relatively far away from it.

  For more information about Snap Tolerance, see *Using "Snap To" to Select Nodes and Centroids* in the *Help System*.

- Find Selection Options include:

  - **Zoom on Find Selection** — Select this option to zoom to the selection each time you perform a Find Selection for single and multiple objects. Clear this check box to prevent zooming when performing a Find Selection.

  - **Find Selection after Paste** — Select this option to turn on the Find Selection feature in the Map window only after you Paste an object. If you have an active Browser, and the selection is in that Browser window, the browser still scrolls to the selection. Clear this check box to prevent zooming after pasting an object.

4. In the Projection tab, select from these options:

   • **Table Projection** — To set the default projections for the current map, designate a default table projection for creating new tables, importing GML 2.1, MIF, MBI, and IMG files, and for **Choose Projection** options in dialog boxes.

   Note You can override the table projection defaults by accessing the **Choose Projection** button throughout MapInfo Professional except when you use the Universal Translator, ArcLink, or when you import DXF files.

   • **Session Projection** — To set the option to designate a default MapBasic projection for returning coordinate values using a MapBasic window or Update Column. Compiled MapBasic applications are not affected by this preference.

• To change the format in which coordinates display, select one of the options in the Display Coordinates group. You can select only one:

   • **Decimal Degrees** — By default, MapInfo Professional displays coordinates in decimal degrees. MapInfo Professional displays coordinates of objects in the Object Info dialog boxes, and of the cursor location in the status bar if that display option is selected.

   • **Degrees, minutes, seconds** — Choose this option to display your Map using the degree, minute, seconds format.

   • **Military Grid Reference System** — Choose this option to display your Map using the Military Grid Reference System format. Coordinates are converted to the Military Grid Reference System format using the World Geodetic System (WGS) of 1984 Ellipsoid.

   To override this preference in individual maps, use the Map Options dialog box (on the **Map** menu, click **Options**). Overrides to the default coordinate setting will be saved to your workspace.

   Selected in either the Map window preferences or the Map Options dialog boxes, the format will display in the status bar, but not in the Object Info dialog boxes. If you display any Object Info dialog box for an object on a map that uses the Military Grid Reference System, the coordinates will be displayed in decimal degrees.

5. Select the **Distance/Area using** settings to specify the default type of distance/area calculation that MapInfo Professional uses for new Map windows.

   • **Spherical** — The Spherical calculations measure distance according to the curved surface of the Earth. **Spherical** is the default. The data is first converted to Latitude/Longitude and then a calculation is produced. Lat/Long data will always use spherical calculations.

   • **Cartesian** — The Cartesian method performs calculations on data projected onto a flat plane. Cartesian coordinates (x,y) define the position of a point in two-dimensional space by its perpendicular projection onto two axes which are at right angles to each other. Long/Lat projections cannot use Cartesian calculations.

   Note To specify a calculation method for the currently active Map window, use the Map Options dialog box (on the **Map** menu, click **Options**).

6. Click **OK** to save these settings and return to the Preferences dialog box.

7. Click **OK** to close the Preferences dialog box.

• For more information, see *Scrolling through a Map*, *Specifying Options in a Map*, *Changing the Default or Preference Setting for Calculations*, *Centering a Map Using Military Grid Reference System (MGRS) Coordinates*, and *Setting Default Clip Region Options* topics in the *Help System*.

Setting your Layout Window Preferences

To set the global default preferences for Layout windows:

1. Choose **Options > Preferences > Layout Window** to display the Layout Window Preferences dialog box.
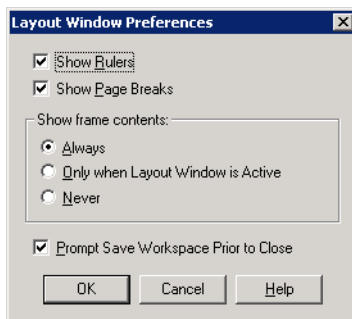
*Use this dialog box to set the preferences for Layout windows. Completing the entries
in this dialog box ensures that your layouts will have a uniform look and feel.*

2. Complete the selections in this dialog box and click OK to save your Layout window preferences.

   Show Rulers

   Select this check box to display rulers in your Layout window. Rulers can be useful to help you line up elements of your layout on the page. This option is selected by default.

   Show Page Breaks

   Select this check box to display the page breaks in your Layout window. Showing the page breaks ensures that the elements of your layout are consistent from page to page. This option is selected by default.

   Show Frame Contents

   The options in the Show frame contents box allow you to specify when the contents of frames display.

   Always

   Allows you to have the contents of a frame display all the time even when it is not active.

   For example, if you are changing the contents of a Map window that is also in the layout, you might want the **Always** option. That way you can see the effect of the layout as you make your changes. This option is selected by default.

   Only when Layout window is active

   Allows you to display the contents of a frame only when the Layout is the active window.

   Never

   Allows you to display only the file name and frame type, even when the Layout is the active window. For example, choose **Never** when you are resizing and repositioning frames. That way the contents of each frame will not redraw every time you make a change.

Prompt to Save Workspace Prior to Close

When this check box is selected, MapInfo Professional prompts you to save before you close windows with layout changes. Clear this check box if you do not want to be prompted to save your changes. This option is selected by default to prevent accidental loss of information.

Note The prompt only displays if there are changes to the open Layout and Legend windows or when the Layout and Legend windows are new.

3. Click **OK** to save your preference.

Once you set these preferences, MapInfo Professional sets these options automatically whenever you create a new Layout window. To reset these options for a particular layer locally, select **Layout > Options** to display the Layout Display Options dialog box. This dialog box also allows you to set height and width restrictions and an autoscroll option.

Setting your Legend Window Preferences

These settings control the defaults for how titles are specified for all legend frames in the legend window, as well as the default text style attributes such as font and size. The settings correspond to the settings displayed in Step 2 of the legend wizard. MapInfo Professional uses these defaults if there are no metadata keys in the table on which the legend frame is based. If metadata keys are present, the metadata defaults override the settings in Step 2 of the wizard and the Legend Preferences.

To set the Legend window preferences:

1. On the **Options** menu, point to **Preferences** and click **Legend Window** to display the Legend window preferences.
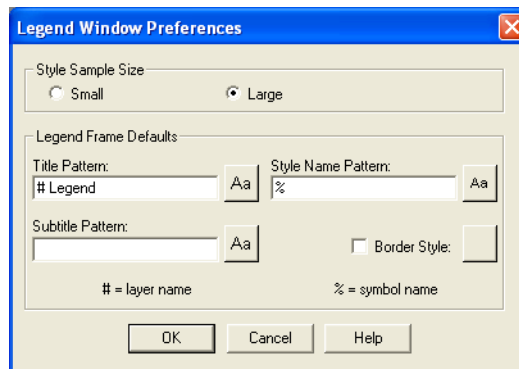
2. Use the options in this window to set the **Legend Frame Defaults**.

   • To set the **Title Pattern**, type the text that you want to display at the top of each legend frame in this box.

   By default, the **Title Pattern** is "# Legend", where '#' is the name of the layer on which the frame is based. So, if the frame is based on the States layer, the default pattern title would be "States Legend." You can change this pattern to "Legend of #" or simply "#." To have no default pattern, leave the box blank.

   Choose a title pattern default that suits your needs. The # character can be used in any of the pattern text boxes as a shortcut key for the layer name.

- To set the **Subtitle Pattern**, type the subtitle text you want in this box. The entry in this box is blank by default, but you can set your own default title pattern for subtitles.

- To set the **Style Name Pattern**, type the text you want to display beside each symbol in this box. The default pattern is the '%' character. The Style Name is the text that describes each symbol in a legend frame. The % character is used as a placeholder for the type of object the legend symbol corresponds to: point, line, or region.

  You can type in your own default **Style Name Pattern**, either using the % character or not. For example, in a legend frame based on the States layer, a Style Name Pattern that reads "% of #" will display as "Region of States" next to the symbol in the legend. The % character can only be used in the **Style Name Pattern** box.

- To set the **Border Style**, select this check box to place a border around the legend and select the appropriate style by clicking the **Border Style** button.

3. To change the defaults of the style attributes for the titles, the style name, or the legend frame border, click the desired style box to display the corresponding style dialog box and make your changes.

4. Click **OK** to save these settings and return to the Preferences dialog box.

5. Click **OK** to close the Preferences dialog box.

Text Box Size Limits

MapInfo Layout or Mapper windows can contain a maximum of 2047 characters. Text object rotation is restricted to under 256 bytes. Y are restricted to 256 bytes.

Setting the Startup Preferences

In general, the Startup preferences control:

- How MapInfo Professional behaves when you startup
- The MAPINFOW.WOR workspace properties such as whether printer information and queries are saved to workspaces

To set your startup preferences for MapInfo Professional:

1. On the **Options** menu, point to **Preferences** and click **Startup** to display the startup preferences.
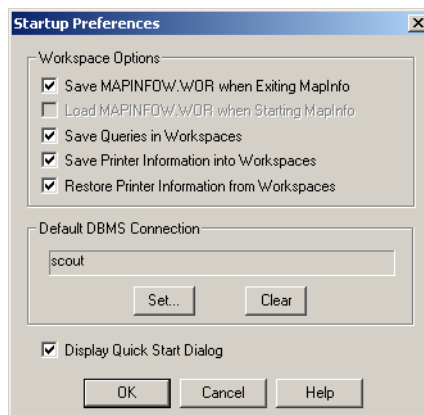
2. Select the following boxes to enable the indicated functionality; clear the check box to disable this functionality. You may select all that apply.

   • **Save MAPINFOW.WOR when Exiting MapInfo** — Select this check box to save your setup to the MAPINFOW.WOR workspace when you exit MapInfo Professional. When you clear this check box, MapInfo Professional does not save the MAPINFOW.WOR unless you save it explicitly.

   • **Load MAPINFOW.WOR when Starting MapInfo** — Select this check box to display MAPINFOW.WOR when you enter MapInfo Professional.

   Note To enable this check box, you must clear the **Display Quick Start Dialog** check box.

   • **Save Queries in Workspaces** — Select this check box to save the queries you create during a mapping session in the workspace. If you do not select this check box and the selected map has only one layer based on a query, the query is not saved and the application writes a map definition with an empty layer list. MapInfo Professional cannot support subselects in queries. The operators Any and All are not supported in the MapXtreme 2004 versions of MapInfo SQL and, therefore, subselects are not supported either.

   Note MapInfo Professional cannot map selections with Group Bys, so Group By clauses are ignored. MapInfo Professional only translates the Order By clause.

   • **Save Printer Information into Workspaces** — Select this check box to save the printer information in the workspace.
   This check box saves the printer name, paper orientation, paper size, and the number of copies from your printer settings into the workspace. This also includes any overrides you might have made to the default printer settings in the Printer preferences. We recommend that you leave this preference on.

   • **Restore Printer Information to Workspaces** — Select this check box to restore printer information from a workspace. When you open the workspace, the printer name, paper orientation, paper size, and the number of copies are restored. This is useful if you are sharing workspaces with other MapInfo Professional (6.0 or later) users who are also using the same printers.

   Note If this preference is turned off, or if the printer indicated is not available, the printer settings for the workspace revert back to the default printer set in the Printer preferences.

   • **DBMS Connection** — Select this check box to save a default DBMS Connection, specify a DBMS connection that will be opened each time you begin a MapInfo Professional session. Click **Set** to set this connection.

   • **Display Quick Start Dialog** — Select this check box to display the Quick Start dialog box automatically when you start MapInfo Professional. This check box is selected by default. Clear the **Display Quick Start Dialog** check box to prevent it from displaying when you start subsequent MapInfo sessions.

3. Click **OK** to save these settings and return to the Preferences dialog box.

4. Click **OK** to close the Preferences dialog box.

To set default DBMS Connections, see *Setting up your Database Connection Preferences* in the *Help System*.

Creating a Startup Workspace

STARTUP.WOR is the name you give to a workspace from which MapInfo Professional is run. You can create it so that MapInfo Professional automatically opens various tables and windows on startup. When you use STARTUP.WOR, MapInfo Professional performs the startup actions regardless of what you did in your previous MapInfo Professional session or how you have set preferences for MAPINFO.WOR.

To create a workspace:

1. Open the tables and windows you want in your workspace. Size and position them as you please.
2. Choose **File > Save Workspace**.
3. Name your workspace "`Startup`" and save the workspace into your "home" directory. By "home" directory we mean your private Windows directory.

When you run MapInfo Professional, the following occurs in the order shown:

1. If there is a STARTUP.WOR in the MapInfo Professional program directory, it is run.
2. Then, if there is a STARTUP.WOR in your home directory it is run. (When there is a STARTUP.WOR in both the MapInfo Professional program directory and your home directory, both will= run.)
3. Then, if any file names are given on the command line—or if you double-click a document, MapInfo Professional loads those files. MapInfo Professional support adding workspaces (.WOR), running applications (.APP), and opening databases (.TAB) on the command line.
4. Only if MapInfo Professional did not add a workspace or run a program from the command line does it then check the AutoLoad preference and load MAPINFOW.WOR from the user's home directory. When the preference is set, and the file is found, it is loaded. Note that if we had a workspace or application on the command line, we skip the AutoLoad.
5. Finally, if MapInfo Professional didn't load a workspace or run an application from the command line, and it didn't AutoLoad MAPINFOW.WOR, then MapInfo Professional shows the Tool palette.

Setting your Address Matching Preferences

Use the Address Matching preferences to specify the placement of the house number in addresses. The default setting is for house numbers to come before the street name.

To set your address matching preferences:

1. On the **Options** menu, point to **Preferences** and click **Address Matching** to display the Address Matching Preferences dialog box.
2. Click **OK** to save this preference and return to the Preferences dialog box.
3. Click **OK** to close the Preferences dialog box.

Setting your Directory Preferences

The Directory preferences control the directories in which MapInfo Professional looks for files.

To set your directory preferences:

1. On the **Options** menu, point to **Preferences** and click **Directories** to display the Directory Preferences dialog box settings.
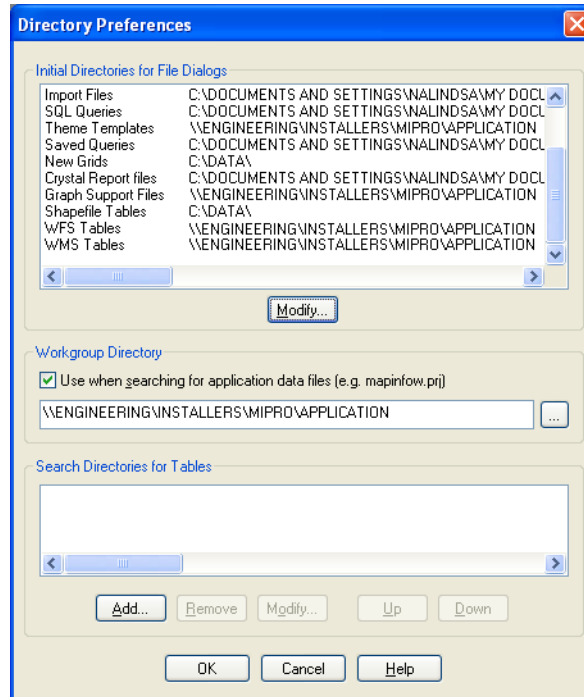
2. To set a preferred directory for each type of file, highlight the file dialog type and click **Modify**. The Choose Directory dialog box displays.
3. Select the appropriate directory for the file type you highlighted and click **OK**.
4. Repeat this process until you have specified all of the directories you need to.
5. If you are accessing your application data files and other configuration files (Mapinfow.prj, templates, and custom symbols) remotely, select the **Use when searching for application data files** check box and enter the path to the remote location in the field below. This field is usually pre-filled for you.
6. Click **OK** to save these settings and return to the Preferences dialog box.
7. Click **OK** to close the Preferences dialog box.

Use this setting to specify the default directories that display in the File menu dialog boxes when you open or save different files. You can specify directories for:

    •   Tables
    •   Remote tables
    •   Workspaces
    •   MapBasic programs
    •   Import files

- DBMS SQL queries
- Theme templates
- Saved queries
- New grids
- Crystal Report files
- Graph support files
- Shapefile tables

When you click **Open**, you can select an icon from the MapInfo Places Bar. Click the **Workspace Directory** icon to display the workspace directory you designated in this preference.

Additionally, use this preference to search for raster and grid tables. If you open a *.tab file for a raster or grid image and the image file cannot be found an attempt is made to find the image in the same location as the .TAB. If the image file is not found, it will then use the Search Directories.

Use the Search Directories for Tables and Workspaces to specify search paths that MapInfo will use to look for tables referenced in workspaces or MapBasic programs that do not have fully qualified paths.

To search directories for tables and workspaces:

1. To specify a search path, in Search Directories for Tables group, click **Add**.

   Note You can use the **Add** and **Remove** buttons to add or remove paths from the list.

2. Specify a drive and directory in the Choose Directory dialog box and click **OK**.

   You can set up to four paths. Use the **Up** and **Down** keys to change the search order.
3. Click **OK** to save these settings and return to the Preferences dialog box.
4. Click **OK** to close the Preferences dialog box.
- For more information see *Choosing the Directories in the Place Bar* in the *Help System*.

Setting your Output Setting Preferences

The Output Settings allow you to control raster and grid file color settings for on-screen display, printed output, and file export settings. In addition, you can also specify how you want to handle transparency in vector and raster files in both your printed output and exported files. Other printer settings enable you to specify an output method, map scaling, and whether to print a border around a Map window.

You can override the settings in the Output settings preferences in the Advanced Printing dialog box. These preferences represent the default settings used in the Advanced Printing dialog box. These settings can then be saved in a workspace.

Note You can get additional printer advice in the MapInfo Professional *Printing Guide* in the Documentation subfolder of your installation directory.

To set your output preferences:

1. On the **Options** menu, point to **Preferences** and click **Output Settings** to display the Output Preferences dialog box.
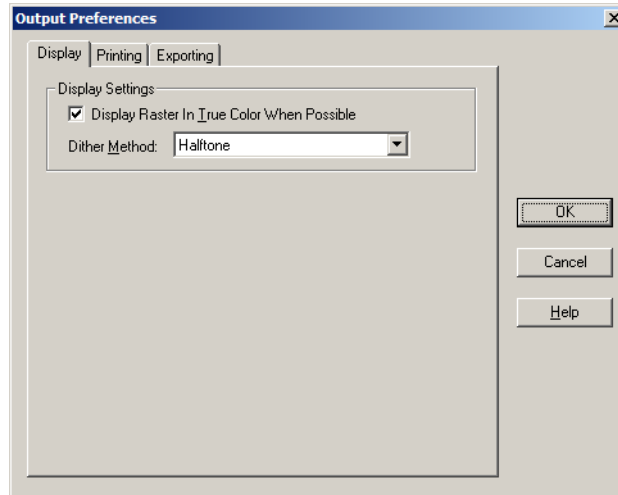
2. The **Display** tab sets the on-screen display options for raster or grid files. Click the appropriate output settings based on your output requirements.

   These entries explain the display settings, the printing options, and window export options in this dialog. Some of the options appear in more than one dialog so we have grouped all of the like explanations together.

   • **Display Raster in True Color When Possible** — Click this check box to display your 24-bit raster or grid file images in true color (make sure your display settings are set to greater than 256 colors). Clear this check box if you only want your images to display using 256 colors. This box is checked by default.

   • **Dither Method** — Dithering is a technique that blends pixels electronically to improve the look of an image. Click a dither method when you are converting a 24-bit image to 256 colors.

     Dithering creates the illusion of complex colors by using a pattern of finite (fixed) color dots. For example, to create the color green using dithering, the color would consist of a pattern of yellow and blue dots.

     Halftone dithering calculates a series of half tone differences in color between high- contrast elements in your image to create a smooth transition of color. This option is selected by default for display, print, and export options.

     Error diffusion dithering calculates an interim color between contrasting colors and shades the surrounding pixels to blend evenly toward that interim color.

   Note   You can select dither method options in the display, printing, and exporting sections of this dialog box. The same definitions apply to each area.

3. Click the **Printing** tab to set the printing options for Map windows, Layout windows and all other output file types. Select the appropriate printing settings based on your output requirements. Remember that resetting these printer options locally overrides these preferences.

   • **Output Method/Print Directly to Device** — Click this option to print your image file directly from MapInfo Professional. This check box is checked by default.

- **Output Method/Print Using Enhanced Metafile** — Click this option to generate an enhanced metafile of your MapInfo Professional image before sending it to the printer. This setting takes advantage of current printer technology to shrink the spool size and print your file quicker without sacrificing quality.

Note You must use this setting if you are printing a map containing a translucent raster or grid layer. If you do not use this setting, the image will not print translucently.

- **Print Border for Map Window** — Click this check box to print a black border around the image you are printing. Clear this check box to leave the image unbordered. This check box is checked by default.
- **Internal Handling for Printing Transparent Vector Fills and Symbols** — Special programming has been added to handle transparent fill patterns and bitmaps for vector images when printing or exporting. Click this check box to use this functionality or clear it to let the printer or Windows export functions to handle this. This check box is checked by default.
- **Scale Patterns** — Select this check box to match the non-transparent fill patterns in your print output to more closely match what you see on your screen. This check box is checked by default. Clear this check box to let the printer driver have exclusive control over rendering the pattern fills.

Note The **Scale Patterns** check box does not affect transparent fill patterns because transparent fill patterns are always scaled.

- **Use ROP Method to Display Transparent Raster** — Click this check box to allow the internal ROP (Raster Overlay by Pixel) to manage the transparent pixel display and printing in raster images. Since the ROP Method is largely a display method, not all printers, plotters, and export programs can use it. We recommend that you either check with the printer manufacturer before using this setting or try a few test prints or exports to get the results you want. This check box is cleared by default.

  Using the ROP method may not produce problems unless you print the metafile.
- **Print/Export Raster in True Color When Possible** — Click this check box to print and export your 24-bit raster or grid file images in true color (make sure your printer settings are set to greater than 256 colors). Clear this check box if you are not working with a color printer. This check box is checked by default.

Note See the Dither Method setting above for details about this option.

4. Click the **Exporting** tab settings to set the export options for Map windows, Layout windows and all other output file types. Select the appropriate window export settings based on your output requirements. Remember that resetting these options locally overrides these preferences.

   - **Export Border** — Select this check box to include a black border on images you are exporting. Clear this check box to export the image without a border. This check box is checked by default.

Note The preference setting definitions for Internal Handling for Transparent Vector Fills and Symbols, Use ROP Method to Display Transparent Raster, Print Raster in True Color When Possible, and Dithering Methods are the same for export as for printing.

   - **Use Anti-Aliasing**— Select this check box to apply the anti-aliasing options available in MapInfo Professional.
5. Click **OK** to save these settings and return to the Preferences dialog box.
6. Click **OK** to close the Preferences dialog box.

Understanding the Anti-Aliasing Export Preferences

To give you more control over map images when exporting MapInfo Professional maps, you can use anti-aliasing methods. This is particularly important when you are saving maps created in MapInfo Professional for use in other Windows-based applications, in particular in slide presentations or for web pages.

The benefits of anti-aliasing can include:

- Make your fonts look smoother
- Make jagged edges in maps look rounder
- Can make text can be easier to read (for some) because it looks more like printed type
- Make maps look more visually attractive

We have added the ability to smooth images and text during the export process. You can use this capability with all types of windows such as Map windows, layouts, legends, and graphs.

Note   You cannot anti-alias images you are exporting to .EMF or .WMF format, because these are not true raster formats.

There are three smoothing options you can use to customize your raster image:

1. *Smooth using a Filter value*. You can set a flag that selects one of six filters that allow you to choose the direction the filter is applied to the image from.

2. *Smooth using a Mask value*. You can select a value that indicates the size of the area you want to smooth. For example, to create a 3x3 pixel mask value, you would enter a 3 in this field. This would limit the amount of change in the color of the pixels. Typically mask sizes would be 2-3 pixels when exporting at screen resolution. If you are exporting at a higher resolution, a larger mask might be appropriate.

3. *Smooth using a Threshold value*. You can select a threshold value to indicate which pixels to smooth. Each pixel in an image has a value based on its color. The smaller the pixel value, the darker the color. Select this option to smooth all of the pixels above the threshold you enter in this field. When you set this value to 0, MapInfo Professional will smooth all of the pixels.

You must either set a global preference for these anti-aliasing options or set them locally during the export process (using the Advanced button).

- For more information, see *Recommendations for Effective Pattern Scaling* in the *Help System*.

Setting the Printer Preferences

You can use the printer preferences to select a printer for MapInfo Professional output, which can be separate from your default Windows printer.

Note   You can get additional printer advice in the MapInfo Professional *Printing Guide*, which is located in the Documentation subfolder of your installation directory.

To set your printer preferences:

1. On the **Options** menu, point to **Preferences** and click **Printer** to display the Printer Preferences dialog box.
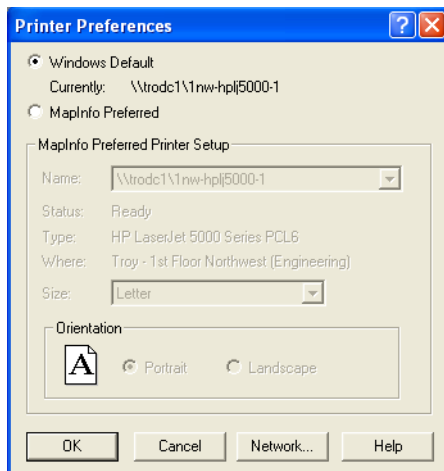
2. Complete your selections using these instructions.
    *   **Windows Default** — This entry displays the path to the default printer specified for your operating system. This button is selected by default.
    *   **MapInfo Preferred** — Click this button to select a different default printer when printing while using MapInfo Professional. This can be a printer or a plotter. After you select this option you can specify the size of the paper that is appropriate for this printer.
    *   **Size** — After you select a printer, this list prefills with the appropriate paper sizes available. Select the requested paper size from this drop-down list.
    *   **Orientation** — After you select a printer, you can specify the direction that the paper faces. Portrait indicates that the paper is taller than it is wide (as shown in the previous figure); landscape indicates that the paper is wider than it is tall.
    *   **Network** — Click this button to locate the printer or plotter on the network that you want to set as the default. This button only displays for users running under Windows 2000 and Windows XP Pro. The Connect to Printers dialog displays.
3. To select a default printer, do one of the following:
    *   Select the path of the printer you want to use as your default and click **OK**,
    *   Double-click the printer in the list.
    Using either method the Printer Preferences window redisplays.
4. Click **OK** to confirm your selections and set your MapInfo Professional default printer options.

    Note If you selected **Save Printer Information to Workspaces** in the Startup preferences, MapInfo Professional saves the printer information and settings to the workspace.

    To set this preference, make changes in the Startup Preferences dialog box.
5. Click **OK** to save these settings and return to the Preferences dialog box.
6. Click **OK** to close the Preferences dialog box.

If you select the Windows Default printer, MapInfo will always use the printer that is currently set as the default in Windows. The settings for that printer will display in the MapInfo Preferred Printer Setup group. You will not, however, be able to change them in the Printer Preferences dialog box. To change the Windows default printer, go back to the Windows Control Panel.

To use a printer other than the one indicated in the Printer preferences, choose either:

• On the **File** menu, click **Print**. You can change the printer you are using in the Print dialog box, overriding the default printer settings.

• On the **File** menu, click **Page Setup**. In the Page Setup dialog box, click the printer to display the Preferences dialog box for the default printer. Select a different printer in the Name drop-down list. This will override the default printer set in the Printer preferences.

Note The printer override applies only to the window you are currently printing. To change the default settings, go back to the printer preferences and specify a new default printer.

• For more information, see *Selecting a Printer* and *Error Message Displays when Print Output is Too Large* topics in the *Help System*.

Setting your Style Preferences

The Style preferences allow you to preset the look of your objects regions, text, and lines.

To set the default style preferences:

1. On the **Options** menu, point to **Preferences** and click **Styles** to display the Styles Preferences dialog box.
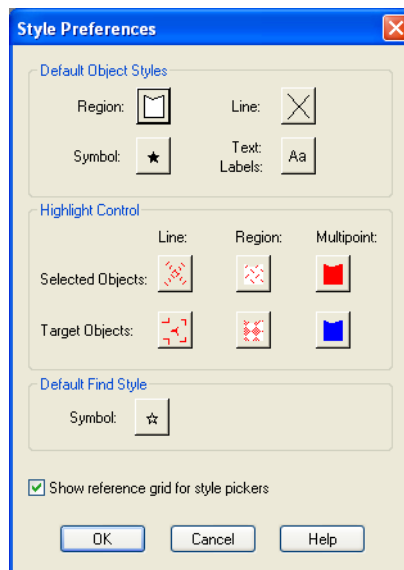
When you set the text styles you are also setting the label styles.

Complete your selections using these instructions.

Default Object Styles — Click the **Region**, **Symbol**, **Line**, and **Text** buttons to set these style options. These selections will serve to create the default settings for these style elements.

The text styles you select here apply to all text objects and labels.

Enhanced Rendering

Enable Enhanced Rendering

Use this check box to apply the following anti-aliasing and object translucency options to your labels and text.

Smooth Text

Use this drop-down list to select the smooth text options for your labels and text.

Highlight Control — Click this button to specify the Line, Region, and Multipoint styles of selected and target objects, as well as highlighting specifications in the Map window. Additionally, specify the style of selected and target multipoint objects. The default settings are shown in the **Style** boxes of the **Highlight Control** group. click one of the boxes to display the corresponding style dialog box and change its settings.

Symbol — Click this button to set the default symbol style for Query > Find tasks. In the Symbol Style dialog box, select the new symbol style and click **OK** to save them.

Show reference grid for style pickers — Click this check box to display reference grids on the style picker dialog boxes. This option allows you to refer to a particular style based on the intersection of the column letters and row numbers. Clear this check box to stop the reference grids from displaying.

2. Click **OK** to save these settings and return to the Preferences dialog box. Click **OK** to close the Preferences dialog box.

•   For more information, see *Changing the Find Symbol Style Locally* and *Inserting Styles into Tables* in the *Help System*.

Setting the Web Services Preferences

The Web Services Preferences dialog box provides access to settings for the Web Feature Service and Web Map Service timeout values, GetMap pixel limits, and Proxy Server settings in MapInfo Professional. Additionally, you can set geocoding server and routing server options. These options allow you to control the web services preferences.

Note   You can set per-server defaults based on particular WFS and WMS servers in the **Override Timeout Values** section of the Server Information dialog box.

To access the Web Services Preferences dialog box:

1. Choose **Options** > **Preferences** > **Web Services** to display the Web Services Preferences dialog box.
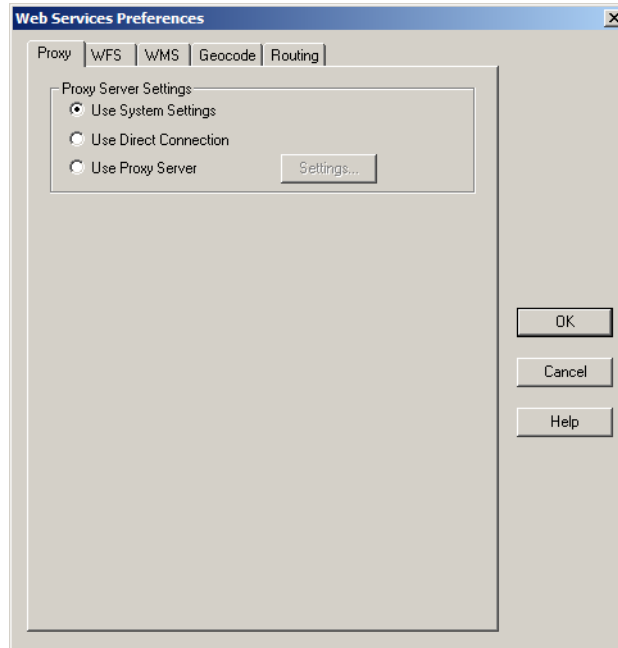
2. Select the tab you want to set the options for and click **OK** to save the options you select.

Setting the Proxy Server Preferences

1. From the **Options** menu, click **Preferences** and then **Web Services** and then **Proxy** tab to display the proxy server options.

2. Select the preferences appropriate for your server and click **OK** to confirm them.

> **Use System Settings**
> Click this option to use the LAN settings in the system registry. This is the default preference. You can review the current LAN settings by clicking **Start > Control Panel > Internet Options > Connections Tab > LAN Settings**.

> **Use Direct Connection**
> Click this option to override the system LAN settings and try to connect directly to the Internet (not through a proxy server).

> **Use Proxy Server**
> Click this option to set and use the proxy server settings to connect to the Internet.

> **Settings**
> Click this button to set the proxy server options. See **Setting the Custom Proxy Server Preferences on page 66** for instructions on completing these settings.

Setting the WFS Server Preferences

1. From the **Options** menu, click **Preferences** and then **Web Services** and then **WFS** tab to display the WFS server options. This tab sets the WFS refresh, timeout, and server options.
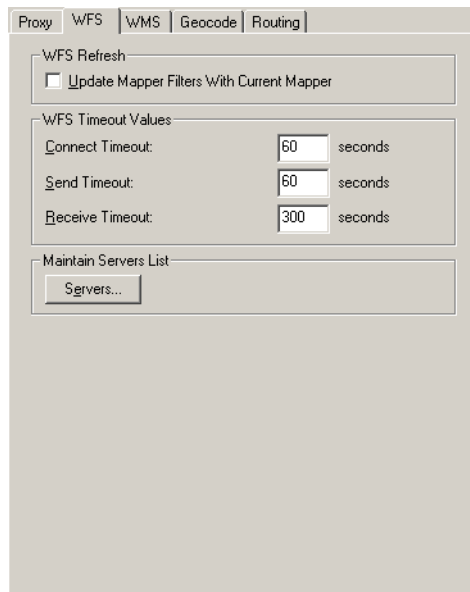
2. Select the preferences appropriate for your server and click **OK** to confirm them.

    WFS Refresh

    You use the WFS Refresh option to retrieve updated GML information from the web feature service pertaining to the current layers.

    Update Mapper Filters with Current Mapper

    Select this check box to use the current filter settings to refresh the Map window. If you select this check box and the table has already been refreshed, the current bounds of the front-most map window are used. If the check box is cleared and the table is refreshed, the bounds of the map window (at the initial WFS request) are used.

    Note   The original map bounds are used, regardless of the current map window bounds.

    WFS Timeout Values

    In this section you set the default WFS timeout values (in seconds) for the WFS servers you use. You can set per-server defaults based on particular WFS servers in the **Override Timeout Values** section of the WFS Server Information dialog box.

    Connect Timeout

    Indicates the amount of time (in seconds) allowed to establish an Internet connection request to a Web Feature server. If the request takes longer than this value, a timeout occurs. The default connect timeout is 60 seconds.

    Send Timeout

    Indicates the amount of time (in seconds) allowed to send an Internet request to a Web Feature server. If the request takes longer than this value, a timeout occurs. The default send timeout is 60 seconds.

Receive Timeout

Indicates the amount of time (in seconds) allowed to begin to receive a response from a request from a Web Feature server. The download can take longer than the timeout, but the response has to occur within the timeout setting. The default receive timeout is 300 seconds.

Maintain Servers List

Click the **Servers** button to display the **WFS Servers List**, where you can add, edit, and delete WFS servers.

Setting the WMS Server Preferences

1. From the **Options** menu, click **Preferences** and then **Web Services** and then **WMS** tab to display the WMS server options. This tab sets the WMS timeout, and server options.

2. Select the preferences appropriate for your server and click **OK** to confirm them.

WMS Timeout Values

In this section you set the default WMS timeout values (in seconds) for the WMS servers you use. You can set per-server defaults based on particular WMS servers in the **Override Timeout Values** section of the WMS Server Information dialog box.

Connect Timeout

Indicates the amount of time (in seconds) allowed to establish an Internet connection request to a Web Map server. If request takes longer than this value, a timeout occurs. The default connect timeout is 60 seconds.

Send Timeout

Indicates the amount of time (in seconds) allowed to send an Internet request to a Web Map server. If the request takes longer than this value, a timeout occurs. The default send timeout is 60 seconds.

Receive Timeout

Indicates the amount of time (in seconds) allowed to begin to receive a response from a request to a Web Map server. The download can take longer than the timeout, but the response has to occur within the timeout setting. The default Receive Timeout setting is 300 seconds.

WMS GetMap Pixel Limits

The GetMap Pixel Limits option represents the maximum number of pixels (in width/height) that a map request is limited to. The GetMap request is designed to retrieve the highest resolution map image as is necessary to render the image on the screen, for a printer, or for an export file. This option prevents the request from going higher than the specified values. Different servers have different limits, so you can set the limit that works best for your environment.

Note   You can set per-server defaults for **GetMap Pixel Limits** in the WMS Server Information dialog box.

Unfortunately, servers do not report their limits to us, so if the GetMap request fails, it means that you have entered a value that is too large.

Typically, large GetMap requests occur when you are printing or exporting windows containing WMS images. This happens because printing and exporting occurs at larger sizes and/or higher resolutions than on-screen display requires.

Note   You can also use this option to shorten the WMS map retrieval time, but remember that the resulting image will display at a lower resolution.

Max Width

Max Width specifies the maximum number of pixels for a GetMap request in the X direction.

Max Height

Max Height represents the maximum number of pixels for a GetMap request in the Y direction.

Maintain Servers List

Click the **Servers** button to display the WMS Servers List, where you can add, edit, and delete WMS servers.

Setting the Geocoding Server Preferences

You can get more information about setting up a geocoding server in Setting up a Geocoding Server on page 67. A table must be open to enable the Geocode using Server menu item.

To set the geocoding server preferences:

1. From the **Options** menu, click **Preferences** and then **Web Services** and then **Geocode** tab to display the Geocoding server options. This tab sets the geocoding server timeout and maintenance options.
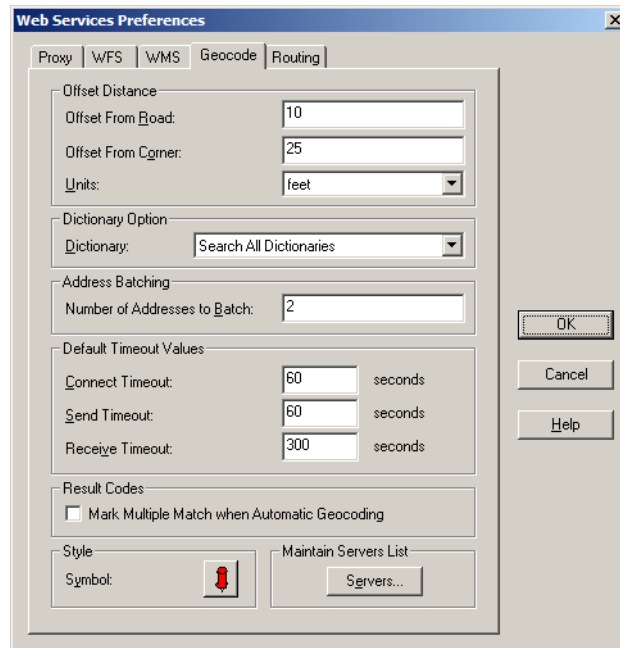
2. Select the preferences appropriate for your server and click **OK** to confirm them.

Offset From Road

Use this field to indicate the default distance the geocoded point should be from the road, if applicable.

Offset From Corner

Use this field to indicate the default distance the geocoded point should be from the corner, if applicable.

Units

Use this field to indicate the units for the previous entries.

Dictionary

Use this drop-down list to select the dictionary options you want the geocoder to use (Address or User). These libraries exist on the service. Not all dictionary types may exist on all services. There are a maximum of 5 options:

Select All Dictionaries - Select this option to use both the user and address dictionaries.

Address Dictionary Only - Select this option to use only the service's address dictionary and not the user's dictionary.

User Dictionary Only - Select this option to use only the user's address dictionary and not the service's address dictionary

Prefer Address over User - Select this option to use the service's address dictionary before the user's address dictionary. This option is the default.

Prefer User over Address - Select this option to use the user's address dictionary before the service's address dictionary.

Number of Addresses to Batch

Use this option to specify how many addresses you want to send to the geocoding service at a time. The number of addresses you send at a time can affect performance. If you are using the EOLS, the batch size can also affect billing of geocoding transactions if you cancel a geocoding operation during processing.

Default Timeout Values

Use these timeout values to set the communication parameters for the geocoding service. You can override these defaults on a per-service basis locally by editing the service in the Services list and specifying the override.

Note When you set the time out values locally, you may want to keep in mind the size of your request. The more complicated your request, the more time may be required for connection/sending/receiving.

Connect Time Out

Use this setting to indicate the amount of time allowed to establish an Internet connection to the geocoding service. If the request takes longer than this value, a timeout occurs. The default connect time out is 60 seconds.

Send Time Out

Use this setting to indicate the amount of time allowed to send an Internet request to the geocoding service. If the request takes longer than this value, a timeout occurs. The default send time out is 60 seconds.

Receive Time Out

Use this setting to indicate the amount of time allowed to begin to receive a response from a request to geocoding service. The download can take longer than the time out, but the response has to occur within the timeout setting. The default receive time out is 300 seconds.

Result Codes - Mark Multiple Match when Automatic Geocoding

Select this option to display a result code of M when you are performing automatic geocoding and there are multiple matches for an address. If you do not select this option, and there are close matches, the system displays an **S** for street only. See *Understanding the Geocoding Result Codes* in the *Help System*.

Symbol Style

Use this setting to set the default symbol style for the points you are creating for geocoding. You can override it during a geocoding operation using **Symbol Style** in the **Common Options** tab.

Maintain Servers List

Click **Servers** to display the **Geocoding Servers List**, where you can add, edit, and delete MapMarker and Envinsa geocoding servers. This list is the same as you would see when you select the **Servers** button in the **Geocode Using Servers** and the Find Address dialog box.

Setting the Routing Server Preferences

1. From the **Options** menu, click **Preferences** and then **Web Services** and then **Routing** tab to display the Routing server options. This tab sets the driving region server maintenance options.
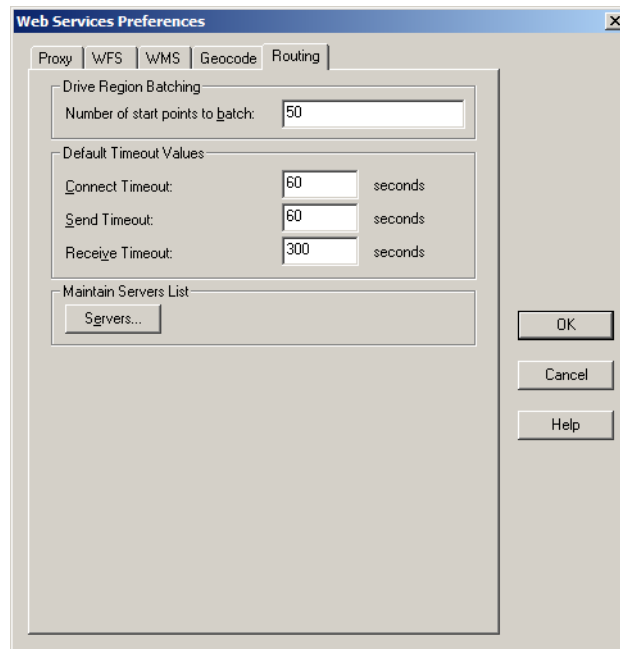
2. Select the preferences appropriate for your server and click **OK** to confirm them.

Maintain Servers List

Click the **Servers** button to display the **Routing Servers List**, where you can add, edit, and delete Envinsa Drivetime servers.

Setting the Custom Proxy Server Preferences

You can configure MapInfo Professional for proxy server use. By default, MapInfo Professional uses your system LAN settings as the default proxy server settings. To set the Web Services Preferences to use a different proxy server, you must know the IP address and port number of the alternate proxy server to properly complete these entries.

To set up your web service preferences to use a different proxy server than those provided in your system LAN settings:

1. From the **Options** menu, click **Preferences** and then **Web Services**. The Web Services Preferences dialog box displays.

2. In the **Proxy Server Settings** box, click the **Use Proxy Server** button and click the **Settings** button. The Web Services Proxy Settings dialog box displays.

    Use these options to configure the proxy server for your internet and intranet use.

3. Enter the IP address of your computer and the port number in the fields provided. If you do not know this information, check the IP Config settings or consult your system administrator.

4. To access local addresses without going through the proxy server, select the **Bypass proxy server for local addresses** check box.

5. To exclude some non-local IP addresses from the proxy server, enter the IP addresses in the text area provided, using a semicolon to separate the addresses.

6. Click **OK** to save your entries.

As a result of these settings, you are prompted for a user name and password when you are attempting to access the Internet to use the Web Map Service or the Web Feature Service features.

Setting up the Image Processing Preferences

You can control the reprojection options of your vector and raster maps using the Image Processing Preference. Reprojection, particularly when reprojecting seamless tables or other large raster map layers, can take a long time. This is particularly true if your reprojection is dramatic, as when you are transforming world-wide rasters from Long/Lat to Mercator, for example. To see the results of this setting go to **Reprojecting a Raster based on a Vector Map** in the Help System.

To set the raster reprojection options for all registered raster files:

1. From the **Options** menu, choose **Preferences** and **Image Processing** to display the Image Processing dialog box.

    You can also access these options using the **Image Processing** button in the Map Options dialog box.

    The **Resampling Method** options are enabled when you select **Always** or **Optimized**. Never is the default reprojection option and reflects the vector reprojection only behavior.

2. Select the reprojection option that suits your raster reprojection needs. Select:
    *   **Never** to prevent raster reprojection. This is the default setting which preserves the pre-version 8.5 MapInfo Professional behavior.
    *   **Always** to ensure that reprojection is always performed, that is, MapInfo Professional calculates the image's coordinates based on a precise formula and then the pixels are resampled using Cubic Convolution or Nearest Neighbor options.
    *   **Optimized** to determine the reprojection of a raster image based on the look of the destination rectangle (a selection of the image) after transformation into the source image

space. If it looks as a rigorous rectangle (two sides are parallel to x-axis and two sides parallel to y-axis), then the standard Windows functions stretch the source image in both directions, as it was in pre-version 8.5 MapInfo Professional. If the image fails the rigorous rectangle test, the reprojection is performed using the resampling options.

3. If you select Always or Optimized, you can decide how best to resample the image from these options:

   - **Cubic Convolution** provides the best restoration of pixel values because of their separateness. Using this option, a pixel in the destination image is calculated based on the pixel values in a 4x4 pixel window centered at the original pixel in the source image. The coordinates of the original pixel are calculated for every pixel of the destination image based on a special optimized procedure. Pixels are then weighted based on the basic pixel coordinates. In general, we recommend you use the Cubic Convolution resampling method for aerial images and satellite rasters to get a better image quality. The Cubic Convolution algorithm used in MapInfo Professional is based on the work of S.K. Park and R.A. Schowengerdt, Computervision, Graphics and Image Processing (1983, Volume 23. Pages 258-272).

   - **Nearest Neighbor** replaces the pixel value in the reprojected image with the original pixel value from the source image. This resampling method takes less time to render than the Cubic Convolution method, but may be less precise. In general we recommend you use Nearest Neighbor resampling for raster maps, grids, and scanned maps to get faster results.

   Note   When you are reprojecting 8-bit palette raster images, such as color .TIFF or .BMP images, MapInfo Professional uses the Nearest neighbor resampling option without regard to the resampling method you choose.

4. After you have selected these options, click **OK** to save them.

   When you choose the Always or Optimized reprojection options, the reprojection process runs in the background, so there is nothing to see, but you can see the differences that the Cubic Convolution and Nearest Neighbor resampling options make in the way the raster displays.

   Note   The data used in this instruction set ships with the product. You can retrieve this data from the data CD.

Setting up a Geocoding Server

To use MapInfo Professional with a geocoding server, you need MapMarker Java Server 4.0 or later or Envinsa Server 4.0 or later. MapInfo Professional supports any geography that is supported by Envinsa currently. Envinsa supports MapMarker Java Server V2, V3, and V4. Keep in mind that any Envinsa server only supports the data that is installed.

Before you can access a MapMarker or Envinsa geocoding service, you need to connect MapInfo Professional to its server. This process gives MapInfo Professional all the information it needs to access the geocoding service. You need to enter this information only once per service.

To set up a geocoding server:

1. Make sure that the table you want to geocode is open.
2. From the **Table** menu, choose the **Geocode Using Server** option to display the Geocode using Server dialog box. If you have not added any geocoding servers yet, the Configure Service dialog box displays.
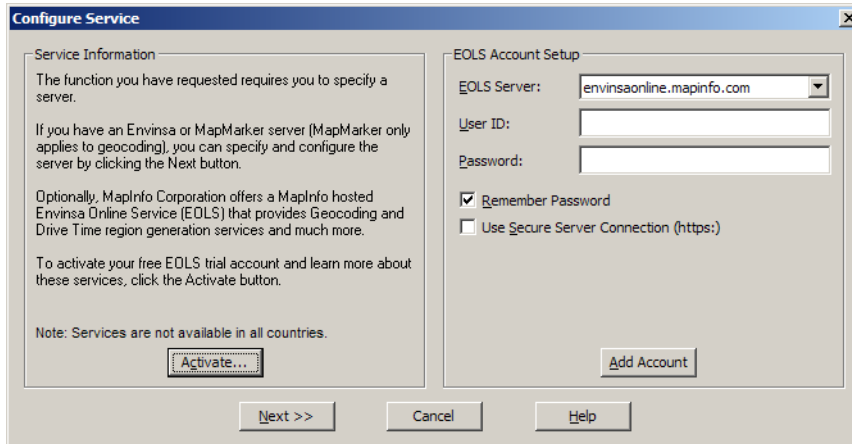
3. Do one of the following:

- *If you do not have a MapMarker or Envinsa geocoding server*, you can use Pitney Bowes MapInfo's hosted Envinsa Online Service (EOLS) to try this functionality. Click **Activate** to sign up for a geocoding service near you. See *Accessing Online Services at MapInfo* in the *Help System* for more instructions in signing on to this service.

  Note Pitney Bowes MapInfo may not have online services with data that includes the geography you are interested in. Please check with your local Pitney Bowes MapInfo sales personnel to ensure that web services exist for your geography.

- *If you have a MapMarker or Envinsa geocoding server*, click **Next** to display the Geocoding Using Server dialog box.
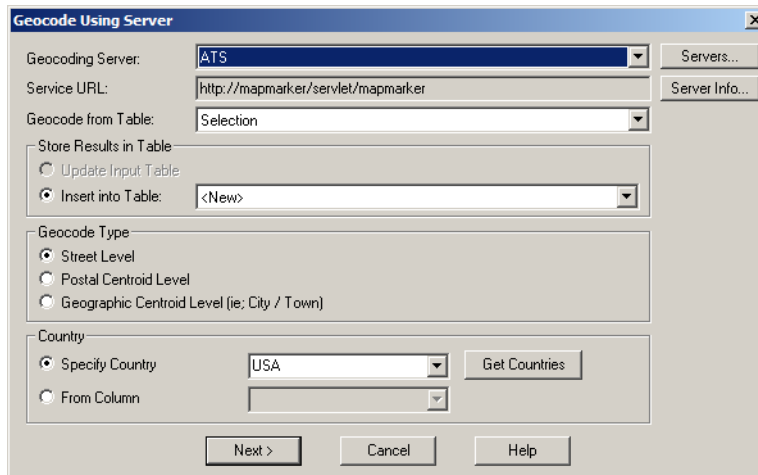
After you add geocoding servers to MapInfo Professional, this box displays your default server.

4. Click **Servers** to display the Geocoding Servers List dialog box.
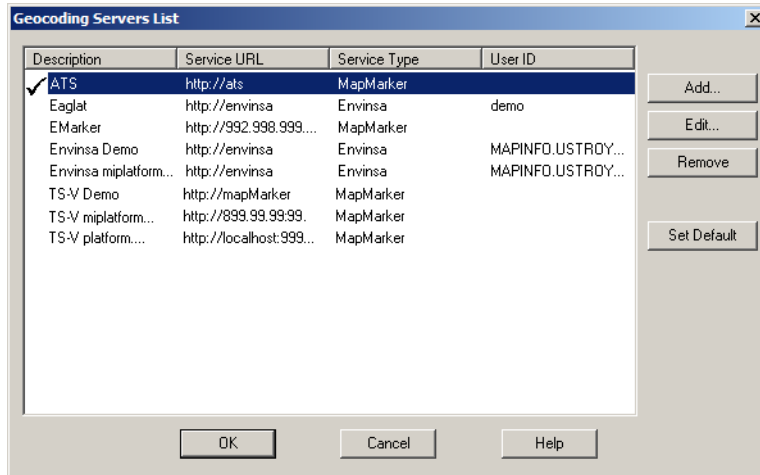
This list is empty by default until you add a geocoding server either using the Servers button in the Geocode Using Server dialog box or in the geocoding web services preferences.

Note When you have entered a server that you will use most frequently, highlight it in the list. Click **Set Default**. A check mark displays to indicate that the server you selected will open by default.

5. To add a new server, click **Add**. The Geocoding Server Information dialog box displays.
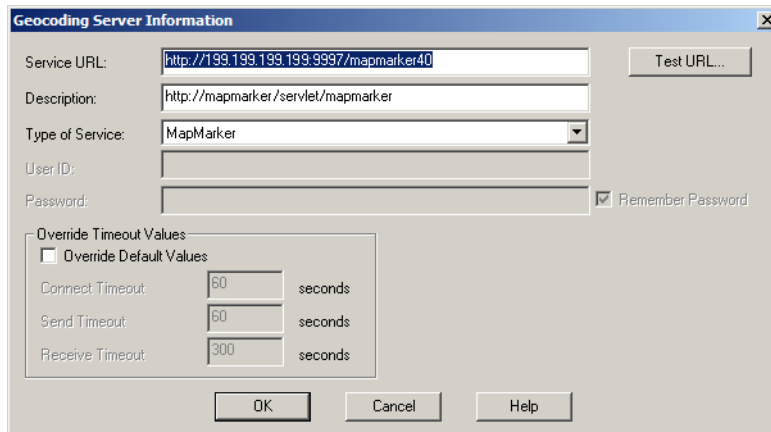
6. Type the service URL and description in the fields provided. You can connect to either a MapMarker or Envinsa geocoding service by making a selection in the Type of Service drop-down list.

When you select an Envinsa service, enter a user ID and password in the fields provided. Select the **Remember Password** check box to save the password in encrypted format in the server list. This option is selected by default. If you prefer to enter the password each time you access this server, clear this check box.

CAUTION: **Anyone knowing this password will be able to use the Envinsa geocoding service.**

7. Consider whether the default timeout settings are appropriate for the service you are adding. The default settings that display in each field are set in the geocoding web services preferences. You can change these global defaults using the instructions in **Setting the Geocoding Server Preferences on page 63**.

    To reset these entries for the current server, select the **Override Default Values** check box and enter new timeout settings using these definitions:

    Connect Timeout

    Indicates the amount of time (in seconds) allowed to establish an Internet connection request to a geocoding service. If the request takes longer than this value, a timeout occurs. The default connect timeout is 60 seconds.

    Send Timeout

    Indicates the amount of time (in seconds) allowed to send an request to a geocoding service. If the request takes longer than this value, a timeout occurs. The default send timeout is 60 seconds.

    Receive Timeout

    Indicates the amount of time (in seconds) allowed to begin to receive a response from a request from a geocoding service. The download can take longer than the timeout, but the response has to occur within the timeout setting. This default timeout is 300 seconds.

    If the default timeout settings are appropriate for the new service, clear this check box.

8. When you have completed these entries, click **Test URL** to ensure that the connection is made. When you click **Test URL** and MapInfo Professional can connect to the service, the Geocoding Server Details dialog box displays.

    If the URL is valid, the **Engine Info** list displays the service's available, country data, the supported geocoding types (Street, Postcode, Geographic), and the version information. Click the column headings to sort the entries alphabetically. Click **Close** to return to the Geocoding Server Information dialog box.

    Note If you select **Test URL** and no service connection is found, an error message displays.

9. When all of these fields and options are complete, click **OK** to save the new geocoding server.

Setting up the Routing Server

Before you can access an Envinsa Drivetime service, you need to show MapInfo Professional where to find the Routing server it is housed on. This process gives MapInfo Professional all the information it needs to access the server. You need to enter this information only once per server. To set the routing server preferences, see **Setting the Routing Server Preferences on page 65**.

To add a Routing server:

1. From the **Options** menu, choose the **Preferences** option and then select **Web Services**. Click the **Routing** tab to set the web service preference options.

2. To add a new routing server, click **Servers** to display the Routing Servers List dialog box.

3. Click **Add**. The Routing Server Information dialog box displays.

    MapInfo Professional supports server-side and proxy server authentication. If you use a proxy server for Internet access and your routing server also requires user/password authentication, you authenticate with the proxy server first. As a result, the Connection dialog box displays twice -- once for the proxy server and once for the routing server.

4. Type the server URL, the server description, the default user name and password in the fields provided. Click the check box to remember the password when you enter the correct user name.

5. Consider whether the default timeout settings are appropriate for the server you are adding. The default settings display in each field. The options you select in this dialog box determine the Routing server's default settings. To change these entries, select the **Override Default Values** check box and enter new timeout settings using the same definitions.

    Note When you have entered a server that you will use most frequently, highlight it in the list. Click **Set Default**. A check mark displays beside the server you selected.

6. When you have completed these entries, click **Test URL** to ensure that the connection is available. The Routing Server Details dialog box displays.

    If the URL is valid, the **Countries** list displays the server's available country data. Click **Close** to return to the Routing Server Information dialog box.

    Note If you select **Test URL** and no server connection is found, an error message displays.

7. When these fields and options are complete, click **OK** to save the new routing server.

Starting up and Leaving MapInfo Professional

In this section we cover the very basics of starting MapInfo Professional, using the STARTUP.WOR, and exiting the program. Since opening a table is basic to getting started in using MapInfo Professional, we cover that topic here, as well.

Starting MapInfo Professional

Now that you have MapInfo Professional installed and have read a little about its power and functionality, you are ready to begin mapping and analyzing your data.

To start MapInfo Professional:

*   Do one of the following:
    *   Double-click the MapInfo Professional icon on your desktop. In a few seconds, MapInfo Professional's Quick Start dialog box displays.
    *   From the **Start** menu, select **MapInfo Professional 9.5** (or **MapInfo Professional 9.5 Client**, if this is a network installation) from the Selected Program folder.

    Using either method the Quick Start dialog box displays.

    Here you can choose how you want to start your mapping session. The Quick Start dialog box displays every time you start MapInfo Professional, but you can change this behavior in the Startup preferences (On the **Options** menu, point to **Preferences** and click **Startup**) using instructions in *Setting the Startup Preferences* in the MapInfo Professional *Help System*. In the Startup Preferences dialog box, clear the Display Quick Start dialog box to deactivate the display of the Quick Start dialog box.
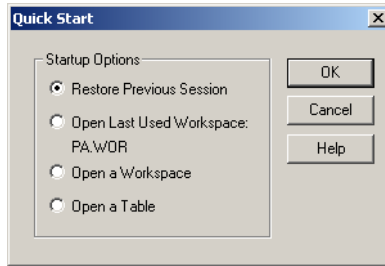
If you are returning to MapInfo Professional, you can return to the previous mapping session by choosing Restore Previous Session or use last workspace. If this is your first look at MapInfo Professional, choose the Open a Table option to begin. The Open dialog box displays.

Exiting MapInfo Professional

To leave MapInfo Professional:

• On the **File** menu, click **Exit**. There is no confirmation message.

CAUTION: **If you made changes to a table and did not save them a prompt appears asking you if you want to save the changes. Unless you choose Save, the changes are lost.**

• For more information, see *Leaving MapInfo Professional using the MAPINFOW.WOR Workspace* in the Help System.

File Format Types Supported

You can open the following file types using the **File > Open** capability in MapInfo Professional:

• **TAB**: MapInfo .TAB files (*.tab)
• **WOR**: MapInfo workspace files (*.wor)
• **MDB**: Microsoft Access files (*.mdb)
• **DBF**: dBASE DBF files (*.dbf)
• **TXT**: Delimited ASCII files (*.txt)
• **WKS**: Lotus 1-2-3 files (*.wk1, *.wks, *.wk3, *.wk4)
• **XLS**: Microsoft Excel files (*.xls)
• **SHP**: ESRI Shapefiles (*.shp)
• **Raster image files** (*.bil, *.sid, *.gen, *.adf, *.img, *.ntf, *.ecw, *.url, *.tif, *.grc, *.bmp, *.gif, *.tga, *.jpg, *.pcx, *. jp2, *.j2k, *.png, *.psd, *.wmf, *.emf, *.map)
• **Grid images** (*.adf, *.flt, *.txt, *.asc, *.img, *.dem, *.dt0, *.dt1, *.dt2, *.mig, *.grd)
• **CSV**: Comma Delimited files (*.csv)

Note Grid Format Direct Support: The following grid handlers support direct read of DEM-USGS Text (.dem); *GTOPO30 (.dem) and DTED levels 1, 2, 3 (.dt0, .dt1, .dt2)*. These grid handlers are read-only; they cannot be used to create grid files during the Create Grid Thematic interpolation process.

Using the Universal Translator, you can import these file format types:

- **DWG/DXF**: AutoCAD
- **E00**: ESRI ArcInfo format
- **SHP**: ESRI Shapefile format
- **MID/MIF**: MapInfo file formats
- **TAB**: MapInfo .TAB files
- **DGN**: Microstation Design files
- **CATD.DDF**: Spatial Data Transfer Standard (SDTS)
- **FT**: Vector Product Format (VPF)

You can import the following file types into MapInfo Professional using **Table > Import**:

- **MIF**: MapInfo Professional Interchange Format. MapInfo Professional's data interchange format (ASCII file format).
- **DXF**: The graphic/data interchange format for AutoCAD and other CAD packages.
- **MBI**: MapInfo Professional Boundary Interchange format. An ASCII file for MapInfo DOS boundary files.
- **MMI**: MapInfo DOS MMI
- **IMG**: A file format for MapInfo Professional for DOS image files.
- **GML**: OS MasterMap format.
- **GML/XML:** Geographic Markup Language 2.1 (*.gml, *.xml)

  Note   You can download raster handlers for NIMA formats such as ADRG, CADRG, ASRP, CIB, USRP, and NITF formats from the Pitney Bowes MapInfo website or get them from the Installation CD.

MapInfo Professional imports graphics and textual information from MapInfo Professional Interchange Format, DXF, MBI, and MMI files. MapInfo Professional imports only graphics from IMG.

These are the Raster image file formats MapInfo Professional supports:

- **MrSID**: The MrSID raster handler allows you to open and display raster images compressed in the MrSID format.
- **BMP -- Windows Bitmap**. Windows format only: Monochrome: 8 Bit Color, 24 Bit Color
- **GIF -- Graphics Interchange Format**
- **GIF89a Format (non-interlaced only)**: Monochrome, 8 Bit Color
- **JPEG-2000 -- Joint Photographic Experts Group:** MapInfo Professional supports creating JPEG 2000 files using Save Window As and viewing JPEG 2000 files using the LeadTools raster handler.
- **JPEG -- Joint Photographic Experts Group**
- **JFIF V1.02 (JPEG File Interchange Format):** 8 Bit Gray, 24 Bit Color, No Subsampling, 24 Bit Color, YUV422 Subsampling, 24 Bit Color, YUV411 Subsampling
- **PCX -- ZSoft Paintbrush**
- **PCX File Format Version 5 (Paintbrush Version 3.0): Monochrome**, 8 Bit Gray, 8 Bit Color, 24 Bit Color
- **SPOT -- Satellite Pour l'Observation de la Terre --** Spot Image Formats 1.5 and 4.0: 8 Bit Gray, Format 1.5, 8 Bit Gray, Format 4.0, 24 Bit Color, Format 1.5, 24 Bit Color, Format 4.0
- **TGA -- Truevision TGA Truevision File Format Specification 2.0**: 8 Bit Gray, 8 Bit Color, 24 Bit Color

- **TIFF -- Tagged Image File Format: TIFF Revision 5.0**, Monochrome (Class B), Uncompressed, Monochrome (Class B), PackBits Compression, 8 Bit Gray (Class G), Uncompressed, 8 Bit Color (Class P), Uncompressed, 24 Bit Color (Class R), Uncompressed
- **PNG – Portable Network Graphics Format**
- **PSD – Adobe Photoshop Version 3.0**
- **WMF – Windows Metafile**: The raster handler will load a rasterized version of the WMF file.
- **ECW** – Enhanced Compression Wavlet by ER Mapper
- **GRD/GRC – MapInfo Vertical Mapper**: GRD files can be treated as either a grid or raster image. If the associated .TAB file contains a RasterStyle 6 entry, the file will be treated as a grid.
- **ASRP – ARC Standard Raster Product to 1.2**
- **ADRG – ARC Digitized Raster Graphic**
- **CADRG- Compressed ARC Digitized Raster Graphic**
- **NITF – National Imagery Transmission Format (version 2.x)**
- **CIB – Controlled Image Base**
- **GIF – Graphics Interchange Format**
- **TIFF LZW– Tagged Information File Format LZW**
- **TIFF CCITT Group 4– Tagged Information File Format CCITT Group 4**
- **GeoTIFF**

File Limitations for MapInfo Professional Supported Formats

Keep the following notes in mind when working with these MapInfo formats:

- MapInfo Professional only supports the DXF file import to release 13. This has been superseded by the Universal Translator and Open Universal Data feature.
- The Open Universal Data feature supports all DXF formats up to the current AutoCAD release. While it is our company's intention to keep pace with the new releases of FME, if you extend the application to import AutoCAD DXF files using a newer version of FME before we have upgraded our product, errors may occur
- You can have maximum 500 files open at a time in MapInfo Professional if you remove the HKEY_LOCAL_MACHINE\SOFTWARE\MapInfo\MapInfo\Common Max Files registry key
- You can have up to 125 files open at a time for editing in MapInfo Professional.

2

What's New in MapInfo Professional 9.5

Thank you for upgrading to the most advanced computer mapping product in the Pitney Bowes MapInfo software family! As the field of computer mapping continues to expand, Pitney Bowes MapInfo leads the way with new products that are designed to fulfill your computer mapping needs from the most basic to the most specialized.

For more information about the bug fixes and corrections we have made to MapInfo Professional in this release, you will soon be able to review the release notes at:

http://reference.mapinfo.com/

Topics in this Section:

Before You Get Started

There are some important enhancements to the MapInfo Professional functionality that make the application easier to use, make your maps better looking, give you more options for creating and editing data, better data access, and enhanced licensing and deployment. Developer users now have greater programmability support with the introduction of .Net design and integration options.

Most of the data used in this documentation is available either from the data CD or from the trial data on the Pitney Bowes MapInfo web site. To retrieve the trial data, go to:

http://goto.mapinfo.com/webtutorials/

and download this data to your computer. You must have Internet access to retrieve the tutorial data.

Workgroup Installation Supports File Sharing

In the past, System Administrators installed MapInfo Professional program files in a network location and gave users access to these files via a shortcut. This was known as a "Network" installation.

System Administrators have asked us for an installation process that enables them to store commonly used files in a shared, central location to accommodate Vista requirements. This "Workgroup" installation allows users to retrieve the Application Data Files (such as the MAPINFOW.PRJ file and custom symbols) from a shared, network location but install the program locally. Using this model, all users can share coordinate system settings, templates, and custom symbols.

There are two steps to this Workgroup installation process:

1. **System Administrators** create a shared location for the application data files and create a method for users to install MapInfo Professional on their own computers.
2. **Users** install the application on their computers, pointing to the shared location for their Application Data Files.

What are the Application Data Files?

Application Data Files are user files that affect the look and basic settings of your MapInfo maps. Specifically:

- Configuration files:
    - MAPINFOW.ABB (The abbreviations file)
    - MAPINFOW.CLR (The colors file)
    - MAPINFOW.FNT (The fonts file)
    - MAPINFOW.MNU (The menu file)
    - MAPINFOW.PEN (The pen file)
    - MAPINFOW.PRJ (The projections file)
    - WFS and WMS server lists
- Thematic Templates
- Custom Symbols
- Graph Support

• Layout Templates

Beginning a Workgroup Installation (System Administrators)

To prepare for a Workgroup installation:

1. Inset the installation CD, click **Install Products** > **MapInfo Professional** > **MapInfo Professional Workgroup**. The Workgroup Install dialog box displays.

2. Click **Install MapInfo Workgroup**. At the Welcome dialog box, click **Next**.

3. In the License Agreement dialog box, click **I agree** and click **Next**. The Custom Setup dialog box displays.
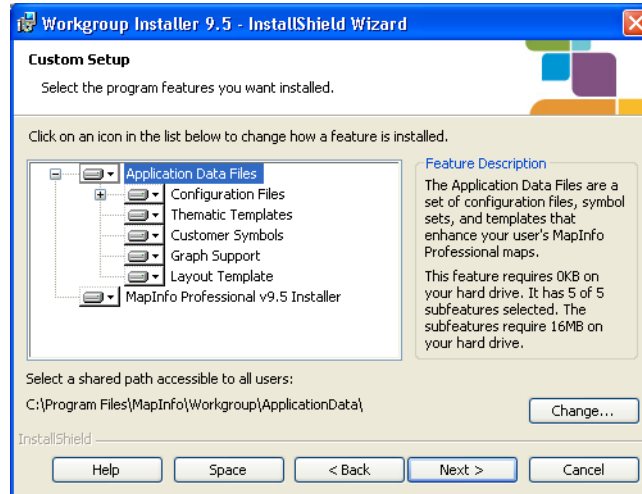
Note: All Application Data Files are selected by default.

4. To prevent file sharing of one or more of these file types, click the drop-down arrow beside the file type and select **This feature will not be available** from the list.
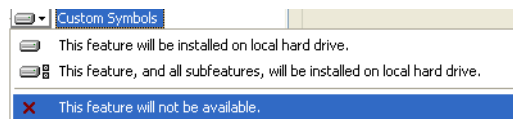
Note When you choose not to install file(s) to the shared location, MapInfo Professional uses the local copy of these file(s) instead.

5. Highlight the **Application Data Files** entry and click **Change**. The Change Current Destination Folder displays. Navigate to the the shared location for storing these files and click **OK**.

Make sure that this shared location is accessible by all users who need these files. Users will need read/write access to add new templates and other custom symbols to share.

Note When users install MapInfo Professional, these same Application Data Files are also stored locally. This allows them to access these files when the shared folder is unavailable. For more details, see **Completing a Workgroup Installation (MapInfo Professional Users) on page 79**.

6. Highlight the **MapInfo Professional v9.5 Installer** entry and click **Change** to display the Change Current Destination Folder dialog box.
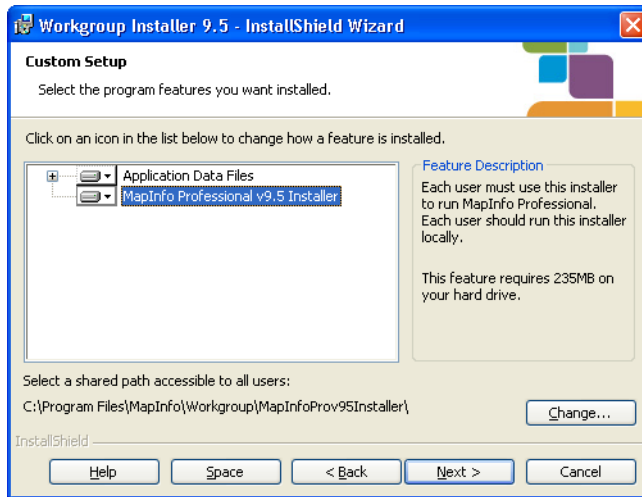
Do one of the following:

- *If you want your users to install MapInfo Professional from a CD you create*:
  select a local destination folder and click **OK**. This installer then copies the MapInfo
  Professional installation files to the local destination folder you selected. At the end of this
  process, you can create installation CDs for each user from the installation files copied to this
  local folder. You can then distribute these CDs to each user so they can begin their MapInfo
  Professional installation.

- *If you want your users to install MapInfo Professional from a central network location*:
  select a network location folder and click **OK**. This installer then copies the MapInfo
  Professional installation files to the network location folder you selected. At the end of this
  process, notify each user of this network destination folder so they can begin their MapInfo
  Professional installation.

The Custom Setup dialog box displays.

7. Click **Next** to display the Ready to Install the program dialog box. Click **Install**.

8. At the end of this process, the Installshield Wizard Completed dialog box displays. Click **Finish**.

9. Finally, do one of the following:

    - If you saved the installation files locally, create one MapInfo Professional installation CD for
      each user from the contents of the local folder. Make sure you copy the mode.xml file along
      with the other installation files in that directory.

    - If you saved the installation files on the network, notify each user of that network location so
      they can install MapInfo Professional locally.

During this process, you created a MODE.XML file that contains the shared location you set for the
Application Data Files. When the user opens MapInfo Professional for the first time, the path to the
shared location is copied from the XML file to the user's computer registry. If you need to change the
network location of these files, follow the instructions in **Changing the Shared Location after
Installation on page 80**.

Note: IMPORTANT: If your users ask you about the product serial numbers, you can find them on
the outside of the MapInfo Professional box. Serial numbers are also in a letter inside the
box, if you need to store them.

The Application Data Files are also stored locally for use when the shared folder is unavailable. The next section describes this in more detail.

Completing a Workgroup Installation (MapInfo Professional Users)

To complete the workgroup installation,do one of the following:

- If your system administrator has given you a CD or DVD for installaiton, place this media in the appropriate computer drive and follow the **MapInfo Professional Installer** instructions.
- If your system administrator has placed the MapInfo Professional installer in a network location, navigate to that location and follow the **MapInfo Professional Installer** instructions.

Understanding your Workgroup Installation

When you install MapInfo Professional as part of a workgroup, you share commonly used files with the other users in your organization. Workgroups use the same configuration, template, and custom symbol files without having to copy them manually. This method supports each workgroup member in creating more consistent maps.

As part of your application's installation process, the MapInfo Professional installer creates a local copy of these Application Data Files for your use when the shared location is not available. This is very important.

- *If the shared location of your Application Data Files is available,*
  MapInfo Professional saves your template, symbol, and configuration work to the shared location.
- *If the shared location of your Application Data Files is not available,*
  MapInfo Professional saves your template, symbol, and configuration work to your local copy of these files.

Note If the shared location is not available when you open MapInfo Professional for the first time, an error displays explaining that the application will use the local Application Data Files. You can use the instructions in **Changing the Shared Location after Installation** to select a new shared location, if necessary.

Since typically you will access the shared location, this will not be an issue. But if you change any of the Application Data Files locally and the shared location becomes available, we recommend you copy your work to the shared location. This will ensure that your files are available when you and your co-workers need them.

A Note About Graph and Theme Template Files

The search for graph and theme template files is dependent upon the folder setting in the Directory Preferences dialog box. If these preferences do not exist in the network location, the application searches for files locally.

Changing the Shared Location after Installation

To change the shared location for these files after installation, use the Directory Preferences dialog box. Each user in the Workgroup needs to follow this procedure to maintain these shared files.

To change the application data file location for a Workgroup user:

1. Choose **Options > Preferences > Directories** to display the Directory Preferences dialog box.
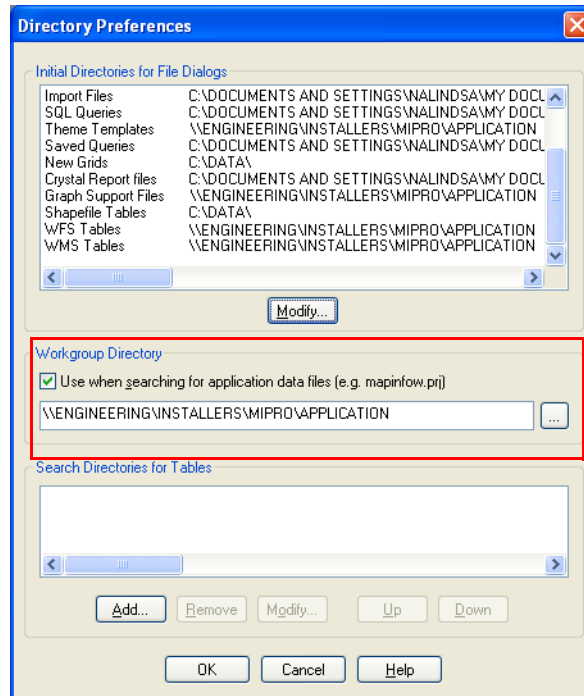
The shared location displays in the Workgroup Directory field.

2. You can reset the Workgroup folder in one of these ways:

    *   *To set a new shared location,* enter a new path in the field provided or click [...] to select a new shared path.
    *   *To use local files only*, clear the **Use when searching for application data files** check box.

    Note   You can use named drives or UNC paths in the Workgroup Directory field.

3. Click **OK** to confirm your change. The application saves this new path to your registry. Each time you open MapInfo Professional after this, the application uses this new path to access the Application Data Files.

Licensing Additions

We have added more flexibility to your MapInfo Professional licenses by adding a permanent, distributed license.

Distributed Licenses are now Available

We have developed a new licensing model that allows companies to "distribute" permanent licenses using your MapInfo License Server, which is available on the MapInfo Professional CD. This model was developed for customers who have limited access to email or to the Pitney Bowes MapInfo FNO server. Distributed licenses follow a similar activation procedure to other models that are handled using your License Server. For instructions on installing the License Server, please see the License Server *User Guide*.

You can also return a distributed license to your License Server if you need to transfer it to another computer. For these instructions, see Transferring a Distributed License on page 82.

Before you start the distributed activation process, make sure you have the following pieces of information from your License Server system administrator:

- The correct serial number and activation code
- The License Server machine name
- The port number for the server

Then you can begin your distributed license installation and activation.

To activate a distributed license:

1. Make sure your MapInfo License Server is running. Check to see that the server is set up properly and contains the appropriate activated licenses.
2. Begin the MapInfo Professional installation process as you would with any other license model.
3. When you are prompted for your serial number and access code, enter the distributed license serial number and activation code. Distributed license serial numbers begin with "MID". Click **Next**. The License Server Name and Port dialog box displays.
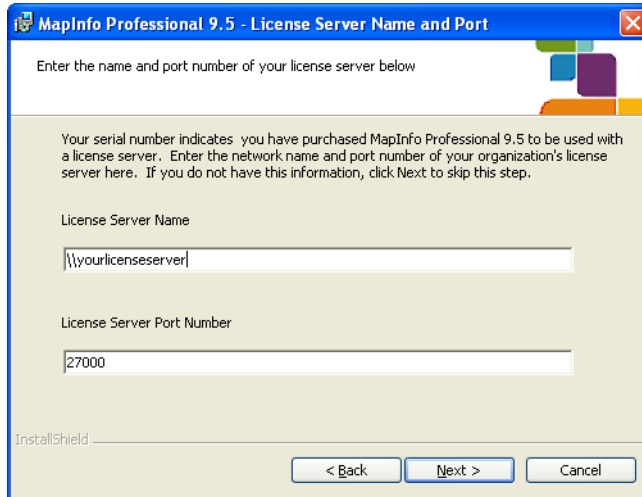
> **Note** The port number defaults to **27000** but it can be set by your License Server system administrator. Check with the administrator if the port number is not working.

4. Type in your License Server's (machine) name in the first field and the port number in the second or leave the default entry in place. Click **Next** to continue. The remaining installation prompts are the same as in **Installing MapInfo Professional on page 13**.

5. When you open MapInfo Professional for the first time, one of the following occurs:

- If the application finds the license server, and the serial number, activation code, and port numbers are correct, the application opens and the product is activated.

- If the application did not access the license server, did not recognize the serial number or activation code, or did not recognize the port number, an error message displays. We recommend that you review these components to ensure that they are correct and/or work with your system administrator to review these four pieces of information. Correct the erroneous information and begin the activation process again.

After you activate your license, you can review the licensing details in MapInfo Professional by selecting **Help > About this MapInfo Product**. The About this MapInfo Product dialog box displays:
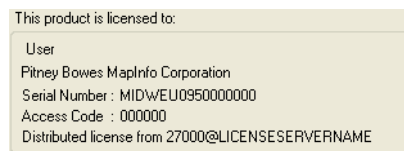
The serial number, access code, and licensing details display in this box for future reference.

Transferring a Distributed License

You can transfer a distributed license to your License Server, when you want to move the license to another computer.

Note Before making any hardware changes to your PC (such as disk re-formatting) please remember to return your activated license back to Pitney Bowes MapInfo or to your License Server. After your hardware has been changed you may then re-activate your license.

To transfer a distributed license to your License Server:

1. Choose **Help > Licensing > Transfer License**. The Return distributed license to license server dialog box displays.

2. Click **OK** to transfer the distributed license to the server. After the transfer is complete, a confirmation message displays. You can then install MapInfo Professional again on another computer using the same serial number, activation code, license server name and path, and port number.

   If you have unsaved or open MapInfo table data, the Save Modified Table Data dialog box displays. This dialog box helps you save or discard data before you transfer your license to your License Server. Click the appropriate option to save or discard this data:

   • Click **Save** to save the open table data
   • Click **Save All** to save the open data in the appropriate data tables
   • Click **Discard** to close the open table without saving the modified data
   • Click **Discard All** to close the open tables without saving the modified data

   After you make your selection in this dialog box, the transfer continues as described above.

Note After you return the license, the application closes. Since MapInfo Professional is still installed on your computer, if you open the application again, the product will attempt to activate another distributed license. If the license is not available, you can use the courtesy license for the balance of your 30 day trial.

Activating and Returning Licenses Silently

Information Technology engineers may want to activate or return MapInfo Professional node-locked or distributed licenses silently, using a log file for reports. The return process described in this section can also return a borrowable license to the server. This section describes these processes.

Activating a Node-Locked or Distributed License Silently

A node-locked license is a permanent license that originates from the Pitney Bowes MapInfo FNO server. A distributed license is a permanent license that originates from a License Server owned by your company. This same process works for both types of license activations.

Note Before making any hardware changes to your PC (such as disk re-formatting) please remember to transfer your activated license back to Pitney Bowes MapInfo or to your License Server. After your hardware has been changed you may then re-activate your license.

To activate a node-locked or distributed license silently:

1. Collect the information you need to install MapInfo Professional on the client's computer, including the appropriate serial number and access code. For distributed licenses, you also need to enter your license server's name and port number.

2. From the client computer's command line, type the following and press **Enter**:

   `<path to application>\MapInfow.exe –ActivateLicense c:\mylog.txt`
   where c:\mylog.txt is the path and name of a log file that tracks the details (successes and errors) of the activation process. The log file is optional.

   Note If you do not specify a log file, as in the example below, the application creates a file called **activatelicense.log** in your temp folder.

   `<path to application>\MapInfow.exe –ActivateLicense`
   One of these events occurs:

   • If the serial number begins with MID, the application attempts to activate a distributed license
   • If the serial number begins with MIN, the application attempts to activate a node-locked license
   • There was an error in the activation process that requires correcting
   To view the results of the activation process after it is complete, open the log file with any text editor. Possible log file messages include:

Message	What to Do
Your node lock license was activated successfully.	The activation process is complete.
Your distributed license was activated successfully.	The activation process is complete.
A license was already activated. No new license is activated.	The activation process is complete.
One of the license components is incorrect or missing	Check the log file to see which component (serial number, activation code, or for distributed licenses, server name or port number) is missing or incorrect.
No license was activated as your license appears to be a concurrent or borrow type license.	Check your License Server and to review the type(s) of licenses that are available. Your client may need to get a concurrent or borrow a license instead. See **MapInfo Licensing and Activation on page 18** for more details on these license types.

Returning a License Silently

Before making any hardware changes to your PC (such as disk re-formatting) please remember to return your activated license back to Pitney Bowes MapInfo or to your License Server. After your hardware has been changed you may then re-activate your license.

You can return a node-locked, borrowed, or distributed license to the Pitney Bowes MapInfo FNO or your License Server using these instructions:

- From the client computer's command line, type the following and press **Enter**:

  `MapInfow.exe -ReturnLicense c:\mylog.txt`

  where c:\mylog.txt is the path and name of a log file that tracks the details (successes and errors) of the return process. The log file is optional.

  Note If you do not specify a log file, as in the example below, the application creates a file called **returnlicense.log** in your temp folder.

  `<path to application>\MapInfow.exe -ReturnLicense`

  One of these things occurs:

  - The license is returned to the Pitney Bowes MapInfo FNO server or your License Server
  - An error occurs preventing the return of the license

  To view the results of the return process after it is complete, open the log file with any text editor. Possible log file messages include:

Message	What to Do
Your distributed license was returned successfully to the license server <ServerName>.	The return process for the distributed license is complete.
Your borrowed license was returned successfully to the license server <ServerName>.	The return process for the borrowed license is complete.
Your node license was returned successfully to Pitney Bowes MapInfo.	The return process for the node-locked license is complete.
If returnable license was found but the system could not return it, the system posts an error message describing the error.	Check the log file for the details of the error and correct the problem either on the client's machine or in your License Server, as needed.
No license was returned as no distributed license was found.	Check the About this Product dialog box to ensure that the license is distributed and try the return process again.
No license was returned as no server license was found.	Check your License Server to make sure the license is available and the server is up. Then try the return process again.
No license was returned as no node- lock license was found.	Check the About this Product dialog box to ensure that the license is node locked and try the return process again.

New Major Features in MapInfo Professional 9.5

We have been hard at work adding the features you have asked for. In this release of MapInfo Professional we have focussed on creating a better map look and feel and better access to new formats. We have also

Saving WFS Data Changes to the Server

If several groups are working with a single dataset, or you are building a centralized database of web-based map data, you may be using a Web Feature Service transaction server to manage that data. You can now use MapInfo Professional to insert, update and delete records to and from a WFS transaction server. Users familiar with the Linked Tables functionality in our application will find this workflow similar.

Updating the WFS-T with Data Changes

This is the overall WFS-T transaction process:

1. Retrieve the WFS-T server records you want to update and create a .tab file.
2. Edit this .tab file data locally using MapInfo Professional.
3. When your changes are complete, save the changes back to the server and MapInfo Professional makes as many changes as it can.
4. Finally, the application offers to refresh the WFS table after you save it.

   Note Remember, features that have changed on the server since you retrieved your local copy may be locked and you cannot update them.

   MapInfo Professional checks to see if there are data conflicts for the features you are updating or deleting. If the server cannot commit these changes due to data conflicts, an error displays to inform you of any failures and, if possible, the reason(s) for those failures. Follow the Conflict Resolution steps in **Resolving WFS-T Data Conflicts** to decide whether to overwrite the server changes with yours, leave the data on the server and lose your changes, or skip the record and maintain your edits locally.

   See **What to Do if You Cannot Complete Transactions** for more information in handling your data.

5. When the transaction is complete, the web feature service displays a message to show any records that were not saved to the server.

Saving WFS Data Changes to the Server

To retrieve WFS layers that you can upload and send back to the server:

1. Choose **File > Open Web Service > Open WFS** to display the Open WFS Table dialog box.
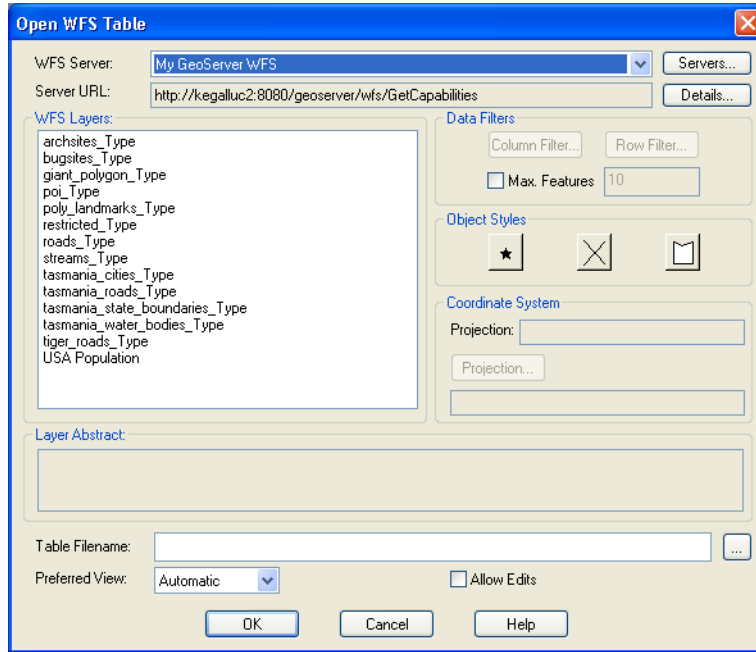
*If the WFS server accepts transactions, the **Allow Edits** check box enables as in this example.*

2. Select the layer you want to edit from the list and click **OK**.

3. Make your data edits in MapInfo Professional.

4. Choose **File > Save** to save your changes to the server.

5. If there are no server conflicts, your changes are saved. A refresh confirmation dialog box displays.
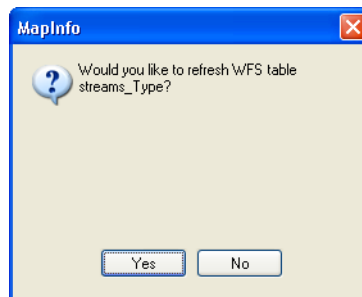
6. Click **Yes** to refresh your table with data from the server. Click **No** to leave the current data in place.

Resolving WFS-T Data Conflicts

If the data on the WFS server has changed since you downloaded it, you may not want to make your changes right away. The Conflict Resolution subsystem allows you to review the changes to be made so you can determine whether to upload your changes anyway or refresh your local layers with the server's changes.

To resolve conflicts with data on the server:

1. Choose **File > Open Web Service > Open WFS** and select a WFS table in the Open WFS Table dialog box.

2. Make your changes to the WFS layer and click **Save**. If a conflict exists, the Resolve Conflicts dialog box displays.
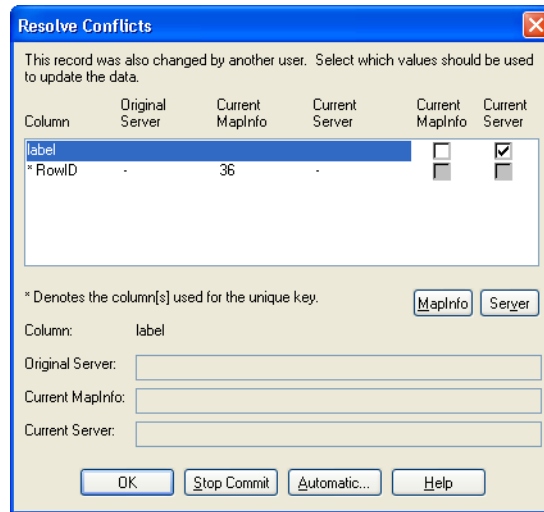
Here, you decide to overwrite the servers data with your data, use the data on the server instead of yours, or save your data locally and leave the server data as it is. You can choose to resolve conflicts *Automatically* or *Interactively*.

- *Automatic Conflict Resolution*: Use this method to treat all of the changes you have made the same way and either upload them and overwrite the server's data or save your changes locally and leave the server records as they are. This method is faster but less flexible.

- *Interactive Conflict Resolution*: Use this method to investigate each record in conflict and decide individually which records to overwrite and which records to leave as they are on the server. This method is slower but more precise.

3. **Automatic Method**: If you know you want to overwrite the server data with your edited data in all cases, or if you want to keep the server data as it is in all cases, click **Automatic**. The Resolve Conflicts Automatically dialog box displays. Select the appropriate option and click **OK**. When you return to the Resolve Conflicts dialog box, move on to **step 5**.
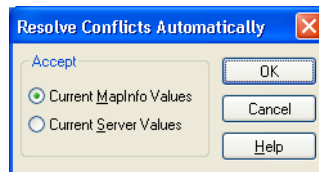
4. **Interactive Method**: Each record displays individually. For each record, do one of the following:
   - To overwrite the server's data with your changes, click the **MapInfo** button
   - To maintain the server's data, click the **Server** button
   - To save this data locally and skip this record click **Stop Commit**

   Note Stop Commit stops the entire "save to the server" process. That is, if you are working in Interactive Mode and you select **Stop Commit**, any changes you have accepted up to this point are saved locally but are not saved to the server. If you want to commit these changes to the server later, begin this process again.

   Once you have decided the handling of each record, move on to .

5. After your conflicts are resolved, click **OK** to confirm your choices. The application applies as many changes to the server as possible.

What to Do if You Cannot Complete Transactions

There are some reasons why you may not be able to update your dataset on a WFS-T enabled server, and it is good to keep these in mind:

- **Server implements Lock Feature.** If the server implements the LockFeature operation, another user may have locked a feature you are trying to change. This LockFeature prevents you from overwriting the other user's work. You can wait until the lock is cleared to update the server.
- **Server doesn't conform to standards**. Not all WFS servers support transactional capabilities. If the WFS-T server does not conform to the OGS specifications, MapInfo Professional may not be able to transact data with it. This is likely a permanent failure, until the WFS-T server conforms to the OGS standard.
- **Server is down**. You cannot connect to a server that is not on-line. When this occurs, the best practice is to wait until the server is available again to complete your transaction.

Who can Read .tab Files Created using WFS-T

At Pitney Bowes MapInfo, we try to keep .tab files as backwardly compatible as we can, to preserve your investment in our product. Some of the changes to the WFS-T do not allow us to do this for MapInfo Professional 9.5. These are the cases and their file format requirements.

If You open a WFS-T Layer and...	Is this Table Compatible with Previous Versions of MapInfo Professional?
Save it locally and do not select the **Allow Edits** check box	**Yes**, pre-9.5 MapInfo Professional users can read this .tab file
Make changes and commit them to the WFS-T server	**Yes**, pre-9.5 MapInfo Professional users can read this .tab file
Make changes and do not commit them to the WFS-T server	**No**, pre-9.5 MapInfo Professional users cannot read this .tab file

Note If you edit a .tab file with WFS-T data in it, you cannot open that .tab file with an earlier version of MapInfo Professional.

New Universal Data Integration and Support

We have upgraded MapInfo Professional to support for SQL Server 2008.

To retrieve data from a SQL Server 2008 database:

1. Choose **File > Open Universal Data** to display the Specify Input Data Source dialog box. You may want to review the details of this process in **Using Universal Data Directly on page 195**.

2. Select the **Ellipsis** [...] button beside the Format drop-down box to display the Formats Gallery.
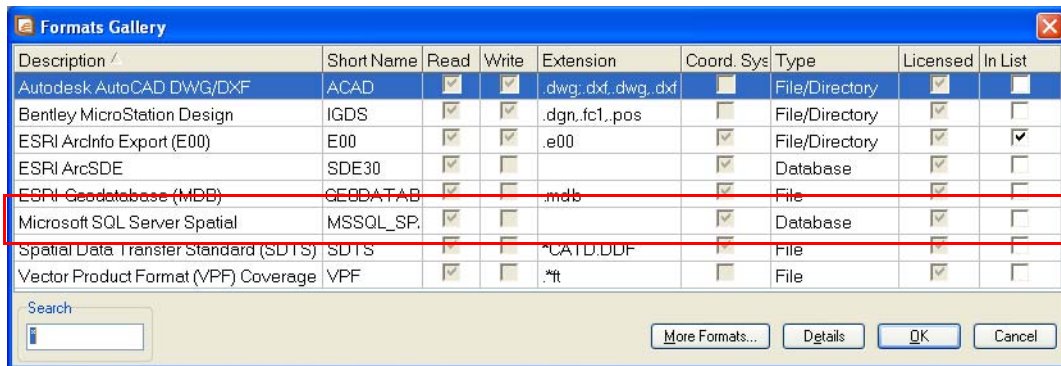
3. Select the **Microsoft SQL Server Spatial** entry to retrieve SQL Server 2008 data and click **OK**. Click the **Details** button to read a format overview, some quick facts, and to review geometry support information when you use this format.

4. The first time you connect to a SQL Server 2008 database, click **Settings** to identify the database and log in information details of the database. The MS SQL Server Spatial Input dialog box displays.
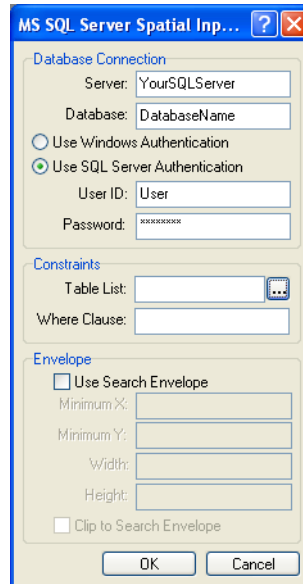
For details in completing this dialog box, see **Understanding the MS SQL Server Spatial Input Settings Dialog Box**.

5. Enter the server name and database information in the fields provided to access the database you want to retrieve data from.

6. Do one of the following:

   - Select **Use Windows Authentication** to use your Windows ID and password to access this database. If you select this option, you will be able to open the resulting .tab file or .wor files that contain this table without entering a user name or password. You do not have to enter a user name or password in the fields provided.

     Note Check with your database administrator to ensure that Windows Authentication has been enabled on your SQL Server database.

   - Select **Use SQL Server Authentication** to enter a unique ID and password to access this database. If you select this option, you will be prompted for this ID and password each time you open this .tab file or access it in a workspace.

   After the database authenticates your credentials, you are ready to select the table(s) you want to display.

7. In the Table List field, select the dataset located on the server you entered. The MS SQL Server Spatial Table list displays.
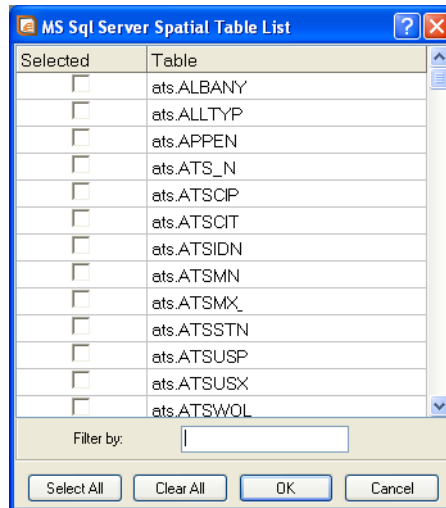
For more information about this dialog box, see the FME Suite Help System.

8. Do one of the following and click **OK**:
   - To select all of the tables in the list, click **Select All**
   - To clear the selection of tables, click **Clear All**
   - To select individual tables in the list, select the check box beside the table

   Use the Filter by field to enter a search string to filter a large number of visible tables.

9. The Select Layers dialog box displays. To change the display options of one or more layers, select it/them. All layers you select together will share the same display characteristics.

   - To change the display options of several contiguous layers, click the name of the first layer, press the **Shift** key, and click the name of the last layer
   - To change the display options of some layers, click the name of the first layer, press the **Ctrl** key, and click the other layers that require the same change
   - To change the display options of one layer, click the layer name

10. Once you have selected the layer(s), use the display buttons to make the style changes you require. If the layer(s) contain:

- Point data, click the **Symbol Style** button to change the symbol options
- Line data, click the **Line Style** button to change the line options
- Region data, click the **Region Style** button to change the background options
- Text data, click the **Text Style** button to change the text options

Note If you want to open maps based on data that is thematically related, assign the same styles to all of the layers.

11. Consider the options that affect the whole data source. You can select from these options:

- Use color information from data
- Do not open empty layers

12. Specify the path for the saved data in the **Directory** field.

13. Select the viewing options from the Preferred View drop-down box.

14. When you have completed your selections, click **OK** to open the data according to the settings you have specified.

If the Choose Projection dialog box displays, select the table's projection and click **OK**.

A status bar displays to indicate the progress and the data displays.

Note For any terminology that is unfamiliar to you, review the FME Suite *Help System*.

As a result of this process, you create a .tab file that you can use to create a map. Once the .tab file is created, each time you open it or open a workspace that contains it, MapInfo Professional retrieves this table using the database entries you have set in these instructions. You do not need to repeat this procedure unless you want to retrieve other data from the same database.

Understanding the MS SQL Server Spatial Input Settings Dialog Box

The information about this dialog box is from the FME Help System.

Database Connection

Server
The host name of the MS SQL Server.

Database
The name of the database to access.

Use Windows Authentication
Specifies whether Windows Authentication should be used to authenticate with the database. If this option is selected, the Username and Password fields are ignored.

Use SQL Server Authentication (default)
Specifies whether SQL Server Authentication should be used to authenticate with the database.

User ID
The name of the user who will access the SQL server.

Password
The password associated with the user ID.

Constraints

Table List

Enter (or browse for) the name(s) of specific database table(s) to extract.

Where Clause

Use this option to limit the rows read from each table. This example selects only the features whose lengths are more than 2000:

```
MSSQL_SPATIAL_WHERE_CLAUSE LENGTH > 2000
```

Envelope

To extract only a portion of the area covered by the layers you have selected, click the **Use Search Envelope** check box and enter the lower left corner (minimum X and Y) and width/height in ground units of the rectangle you need. The application exports all features that intersect this area.

Click **Clip to Search Envelope** to remove any exported features outside the area you need.

Mapping - New and Enhanced Features

We have made several important changes to simplify your work and enhance the look of your maps:

MapInfo Professional Gets a Face Lift

We have upgraded the visual elements of MapInfo Professional to make the application more visually appealing and consistent with other Windows XP products. If you use MapInfo Professional on Windows XP or with Vista, and you have set your current display theme to Windows XP (in the Themes or Appearance tabs) or Vista (in the Window Color and Appearance folder) you may notice that the dialog box elements display differently:
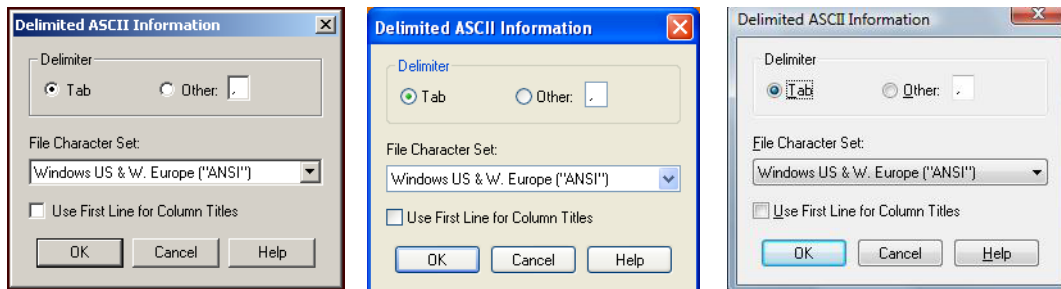
Classic Windows 2000 Display, Windows XP Display, and Vista Display

In the future, we will use the new display settings for dialog boxes in the MapInfo Professional documentation. There is no change in the product's functionality due to this enhancement.

Note When you run MapInfo Professional under Windows 2000, the Windows Classic theme displays and the XP Theme Style is not available. When you run MapInfo Professional under Windows 2003 Server, run the themes services to enable the XP Theme Style. You can access this service by choosing **Control Panel > Administrative Tools > Services**.

Sharing Map Styles Gets Easier

If you want to share a color or a pattern you use in a map, you may have found it difficult to describe the style to another MapInfo Professional user. We have added reference grids to list boxes in the Line Style, Region Style, Symbol Style, and Text Style dialog boxes to make it easier for you to refer to the colors and patterns you use. Reference grids display by default.
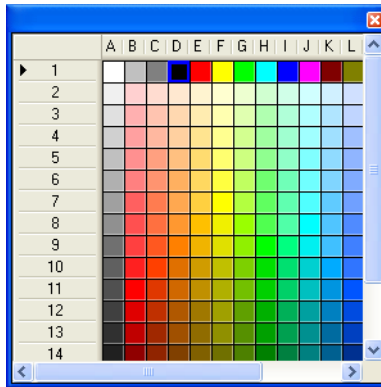
*To close this list, click the **Close** button in the upper right-hand corner of this list.*

In this example, find the intersection of the column letter and the row number that identify the color you want to share or use your mouse to hover over the color to display a tool tip with the reference information.

To see the reference grid in your Symbol Style list:

1. Choose **Options > Symbol Style** to display the Symbol Style dialog box.
2. Click the down arrow beside the Color drop-down list to display the reference grid.

   Note The process for displaying reference grids is the same for all of the style picker dialog boxes.

We have added an option in the Style Preferences dialog box to allow you to display or hide reference grids. To hide the reference grids in the style picker lists, choose **Options > Preferences > Styles** and clear the **Show reference grid for style pickers** check box. To display reference grids at any time, select this check box.

New Features for Custom Symbols

We have added several new features that give you more options and flexibility in working with Custom Symbols.

More Formats Supported for Custom Symbols

You can now add any raster format file as a custom symbol. This includes files that any installed raster handler can support, whether the raster handler is supplied with MapInfo Professional or one you use independently.

Since some raster images require more than one file to display, the process for adding multi-file raster images is slightly different from those images that display using a single file. Examples of these multi-file raster image formats include: *.bil, *.emf, *.gen, *.img, *.ntf. *.url, *.map, *.wmf, *.grc.

Note   MapInfo Professional does not support the ArcInfo binary grid coverage files (.ADF files).

To add a raster image as a custom symbol:

1. Choose **Options > Symbol Style** to display the Symbol Style dialog box.
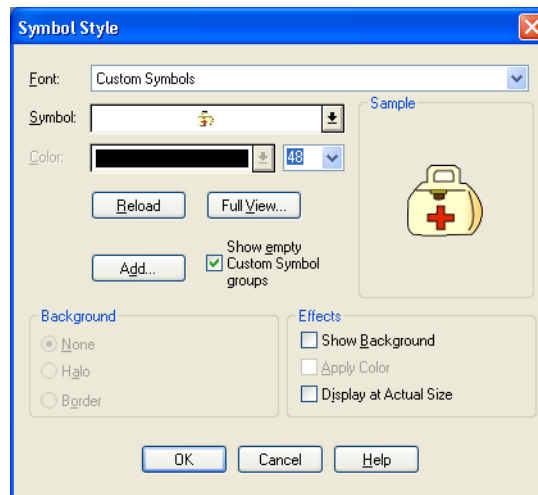
2. Choose the **Custom Symbols** option from the Font drop-down list and click **Add**. The Add Custom Symbols dialog box displays.

    Note   The Files of Type drop-down list only displays the single file formats that are supported, including ***.bmp; *.gif; *.png; *.jpg; *.jp2; *.j2k; *.pcx; *.psd; *.tif; *.tga; *.ecw**. The **All files (*.*)** option allows you to add the image and support files for multi-file format images.
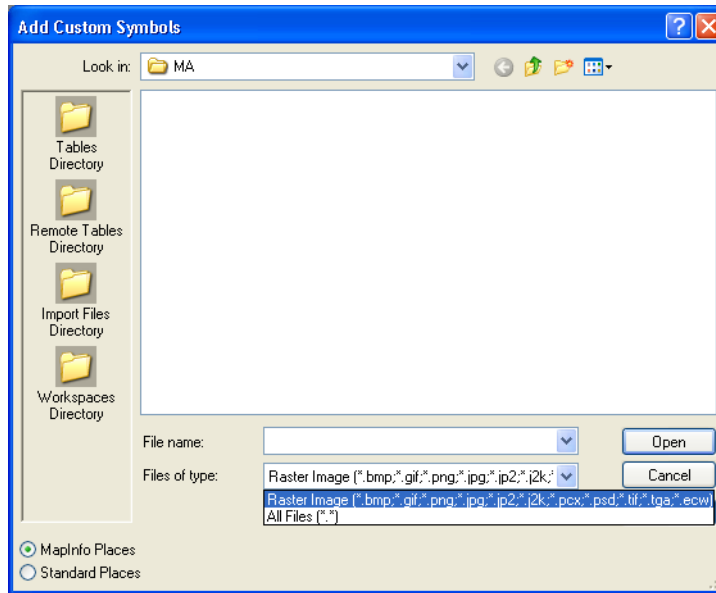
3. Do one of the following and click **Open**:
   - *If you are adding a raster image with a single file format*, navigate to the image you want to add.
   - *If you are adding a raster image with a multi-file format*, select the **All Files *.*** option and select the all of the files that are part of the image you want to add.

   Note You can also copy raster files to the \CUSTSYMB folder subfolder manually.

4. The Add Custom Symbol Results dialog lists the file(s) you are adding.
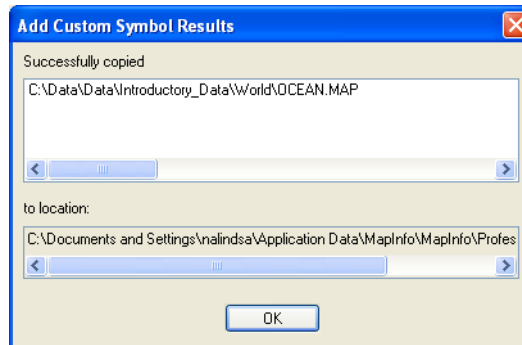
   We have widened this dialog box so it is easier to see full path of the file(s) you area adding to the Custom Symbols folder.

5. Click **OK** to save your image file(s) to the \CUSTSYMB folder.

   Note If you add your custom symbols to the Custom Symbols folder manually, click **Reload** to display your new symbol in the Symbol drop-down list.

These new custom symbols do not have any size restrictions, but your system may slow down if you use very large (multiple gigabyte) images in your maps. Consider the resolution of your custom symbols when you load and display them to prevent this performance issue.

New GIF Custom Symbols Added

We have added some new .GIF custom symbols from the West London local authorities called Civic England that you can use to enhance your maps. These symbols are already in your \CUSTSYMB folder and provide an example of the kinds of images you might want to add using the instructions in **More Formats Supported for Custom Symbols**. These symbols represent institutions, leisure, and transportation.

To access these custom symbols:

1. Choose **Options > Symbol Style** to display the Symbol Style dialog box.
2. From the Font drop-down list, select **Custom Symbols CivicEngland**. We have also added several other Civic England folders that group the images according to use.

Organizing Custom Symbols

Insurance companies and government agencies among others have told us that they use groups of custom symbols together to depict various risks or events. Users asked us to help them organize these symbols so it would be easier to use them together.

When you want to add a set of custom symbols, you can now add them into subfolders of your \CUSTSYMB folder. The name you give the subfolder then appears in the Font list of the Symbol Style dialog box so you can use the custom symbol set in your map.
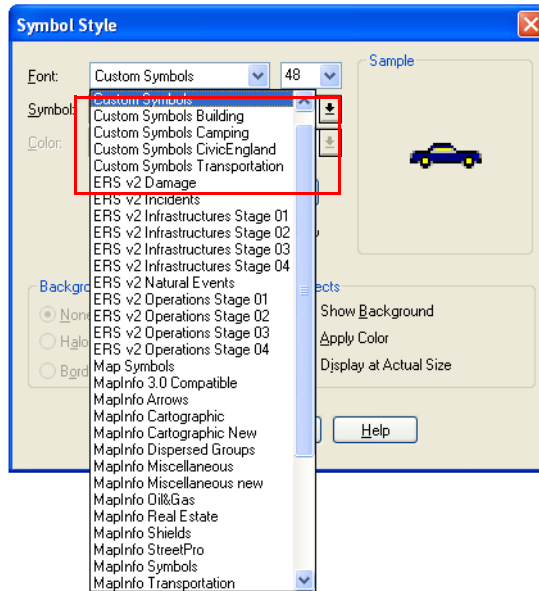
Adding your New Folder to the Font List

After you add the \CUSTSYMB subfolder and images you want, there are several ways that the application can update the Font list.

To add a new folder to the Font list:

1. Using Windows Explorer create a folder under the \CUSTSYMB folder and place the appropriate images into it. We recommend that you name this folder in a descriptive way, in case others also need to use it. For more about sharing your custom symbols, see **Sharing or Not Sharing your Custom Symbols**.

2. After these folders and images are copied, you need to update the Font list so they display. There are three ways to do this:
   - Open MapInfo Professional
   - Choose **Options > Symbol Style** and select **Custom Symbols** and select **Add** to add a symbol individually or select **Reload**
   - Use the MapBasic statement `Reload Custom Symbols from dir` in the MapBasic window

   Using any of these options prompts the application to search for additional custom symbols under the \CUSTSYMB folder.

3. Click the Font drop-down list to display your new folder with the new images in them. In the Symbol drop-down list, the images display in alphabetical order, from left to right.

Using the New Fonts

To use one of the fonts you added:

1. Choose **Options > Symbol Style** and select **Custom Symbols CivicEngland** from the Font drop-down list.

2. Select the image you want from the Symbol drop-down list and click **OK** to display it.

Sharing or Not Sharing your Custom Symbols

Where you keep your \CUSTSYMB folder determines whether you share this folder or not. There are four locations that MapInfo Professional will look for the \CUSTSYMB folder:

- To prevent others from sharing your custom symbol folder (default setting):

  ```
  C:\Documents and Settings\<yourloginID>\Application
      Data\MapInfo\MapInfo\Professional\950\CUSTSYMB\New Subfolders
  ```

- To share your custom symbol folder with other users:

  ```
  C:\Documents and Settings\All Users\Application
      Data\MapInfo\MapInfo\Professional\950\CUSTSYMB\New Subfolders
  ```

- To keep your custom symbol folder in a per-computer location:

  ```
  C:\Documents and Settings\<machine name>\etc...)
  ```

- You can also keep the \CUSTSYMB folder in the application folder:

  ```
  C:\Program Files\MapInfo\Professional\CUSTSYMB\New Subfolders
  ```

Opening Shapefiles with the Projection Automatically

MapInfo Professional now reads the native projection of most Shapefiles before creating the .tab file. This new process allows you to open the Shapefile more precisely.

To open a Shapefile:

1. Choose **File > Open** and navigate to a Shapefile and click **Open**.

   Note If a .tab file exists for the Shapefile you selected, choose the option to overwrite it.

2. Give the .tab file a name and click **Save**. The Shapefile Information dialog box displays.
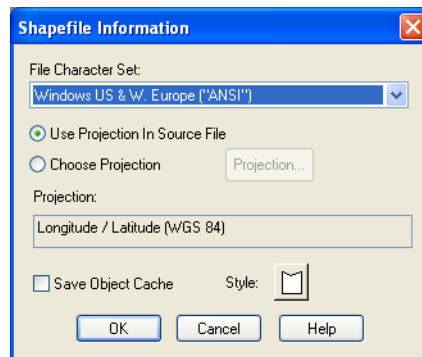
You cannot edit the contents of the Projection field directly.

- If the Shapefile's native projection is found and it matches an entry in the MAPINFOW.PRJ file, the projection's name displays in the **Projection** field as shown in the figure above.
- If a native projection is found but it is not in the MAPINFOW.PRJ file, a message displays in this field: **Not found in projection file** and the name of the native projection displays.
- If a native projection is not found, the name of the currently selected table projection preference displays in this field.

3. One of the following occurs:

   • *If the application detects a supported projection*,
     MapInfo Professional selects the **Use Projection in Source File** radio button and the
     Projection button is disabled. Do one of the following:

     - To use the detected projection, leave **Use Projection in Source file** selected and go to
     step 4

     - To choose a new projection, click **Choose Projection** and click the **Projection** button to
     select a supported projection. In the Choose Projection dialog box, the source projection is
     highlighted. Select the projection you want and click **OK**.

     Note   If you substitute the Shapefile's native projection with a new one, the application does
              not reproject the Shapefile's objects and data using the new projection. Substituting
              the Shapefile's projection in this way may produce unexpected results.

   • *If the application does not detect the Shapefile's native projection, or there is no matching
     supported projection* in the MAPINFOW.PRJ file, click **Projection** to select one and click **OK.**

4. Select the style and cache options for this file.

5. Click **OK** to create the .tab file and display the Shapefile.

New Map Window Changes

In earlier versions of MapInfo Professional, you were limited to adding four tables, selections, or
queries to a new Map window at a time. We have redesigned the New Map Window to make it
easier to add more layers to a new map at once. You can also set the layer order in the New Map
Window dialog box.

To create a new map from the currently open data:

1. Open your source data in MapInfo Professional.

2. Choose **Window > New Map Window** to display the New Map Window dialog box.
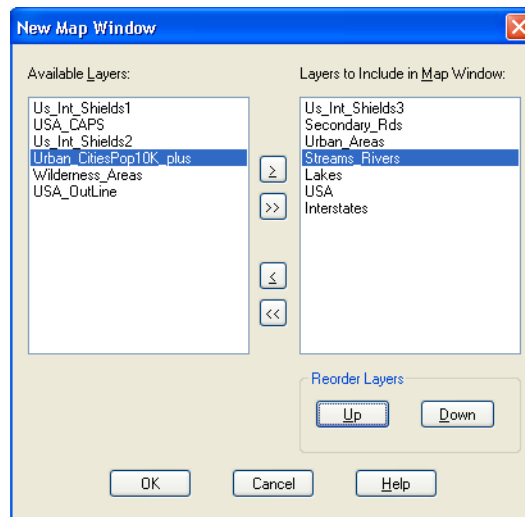
*The layers in the Available Layers list are sorted in the order they were opened, with
the most recently opened layer at the top.*

3. To select data for the new map, do one of the following:
   - Double-click a layer in the Available Layers list on the left to move it into the Layers to include in the Map window list on the right

   - Click one or more layers in the Available Layers list on the left and click [>] to move them into the Layers to include list on the right. Use **Shift** and **Control** to select multiple files.

   If you include a layer (or layers) by mistake, select the layer(s) in the Layers to include list and

   click [<] to return them to the Available Layers list. When you return a layer to the Available Layers list, the layer returns to its original position in the list.

4. To move the layers up and down in the Layers to include list, select the layer you want to move and position it in the list using the **Up** and **Down** buttons.

5. When the Layers to include list contains the layers you want in the right order, click **OK** to display the new map.

Label Enhancements

Labels Look Better in MapInfo Professional 9.5

You may notice that the rotated and horizontal labels that display in your maps look better. We have incorporated a new anti-aliasing process that is based on the latest graphic rendering technology. This technology helps us improve the realism of your map by removing the "jagged" label and text display in low resolution maps.

These label enhancements are also visible in the Layout window, the Browser window (although not the Redistricter window), and the Legend window.
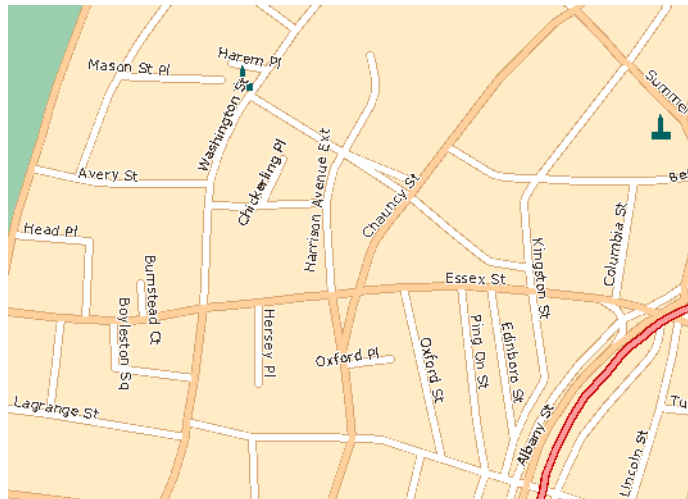
Horizontal Labels with Enhanced Rendering Set to None
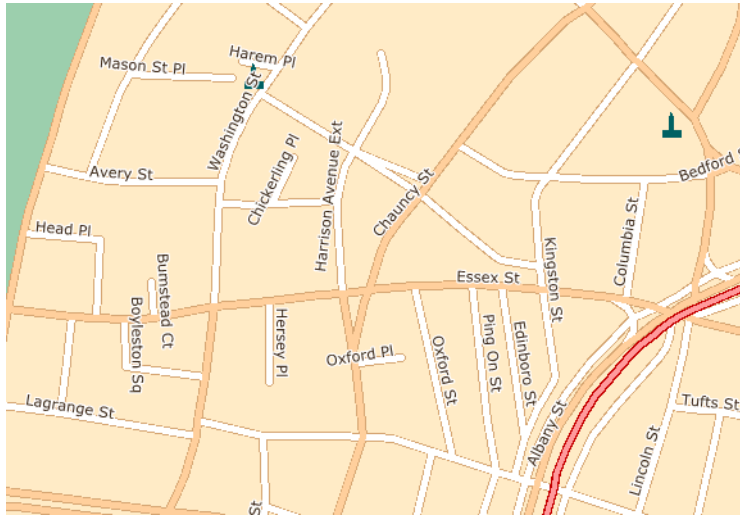
Horizontal Labels with Enhanced Rendering Set to Anit-Alias

Setting the Label Options in the Map Window

To use the enhanced rendering options for labels in a Map window:

1. Open your map and display horizontal or rotated labels.
2. Choose **Map > Options** to display the Map Options dialog box.
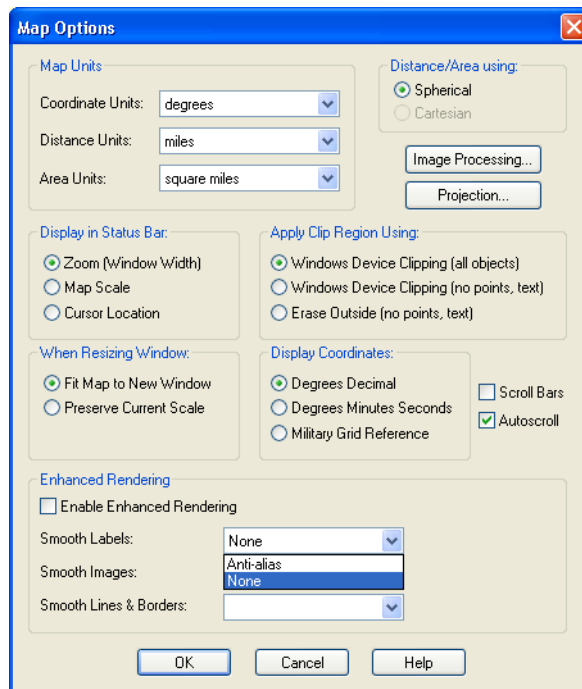
Note Some of the Enhanced Rendering options that display in this dialog box will not be completed until the MapInfo Professional 9.5 Maintenance Release. Selecting these options will not result in any changes to your map. Please review the Release Notes for the Maintenance Release for instructions in using these options.

3. Do one of the following and click **OK**:

   • *To enhance (smooth) the display of horizontal or rotated labels*,
     select the Smooth Labels drop-down list and choose **Anti-alias**.

   • *To display your horizontal or rotated labels more quickly*,
     select the Smooth Labels drop-down list and choose **None**.

Note Using the Anti-alias option causes the labels to be drawn more precisely, which takes more time. You may notice that your map takes longer to display after you select this option.

Remember, this feature affects labels that are rotated or horizontal only. Curved labels are always drawn with anti-aliasing options.

Display More Labels in your Map Automatically

In the past, customers asked us to get as much label detail into maps as we could. To serve this need, we allowed the occasional overlapping autolabel, until your map looked like this.
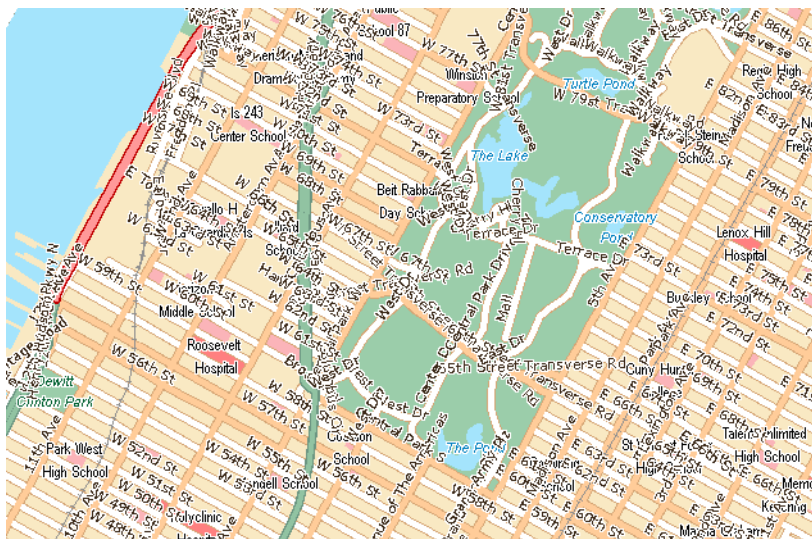
Customers then asked us to prevent overlapping labels, which resulted in maps that looked like this:
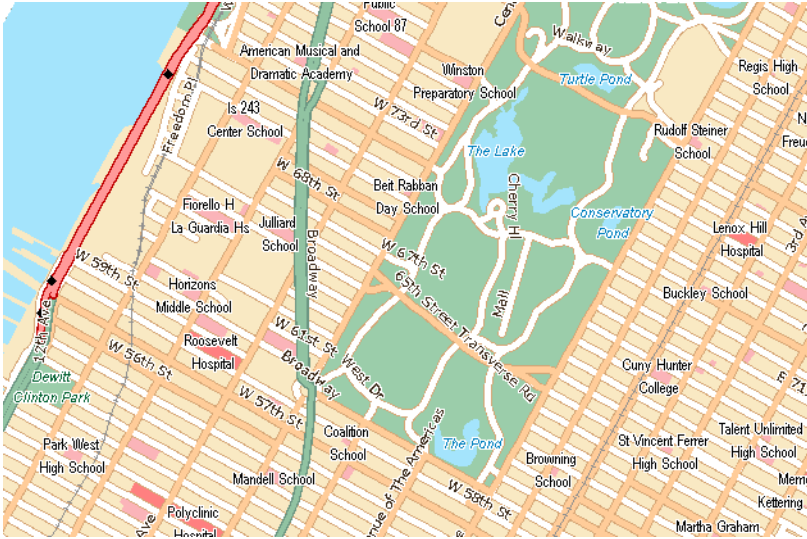
Customers then asked us to find a way to bring the detail back without the overlapping labels that made maps confusing and unreadable.

To do this, we have added a new feature that detects overlapping autolabels and repositions the text around the point, line, or region to avoid overlaps and display more labels. More labels in better positions make a more useful map. When you use this new feature, your map can look like this.
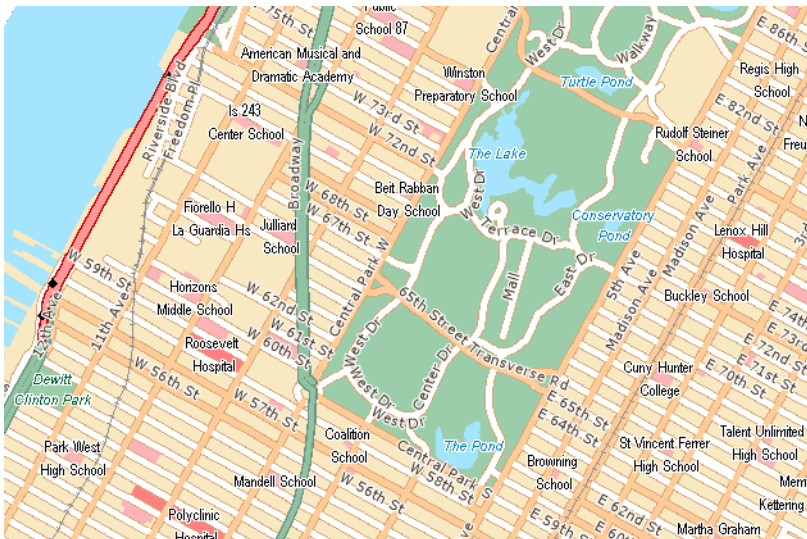
To display more labels without overlapping other labels:

1. With the Map open, select **Map > Layer Control** or ![icon] to display the Layer Control dialog box.
2. Scroll down to a layer that contains labels you want to reposition.
3. Click **Label** to display the Label Options dialog box.
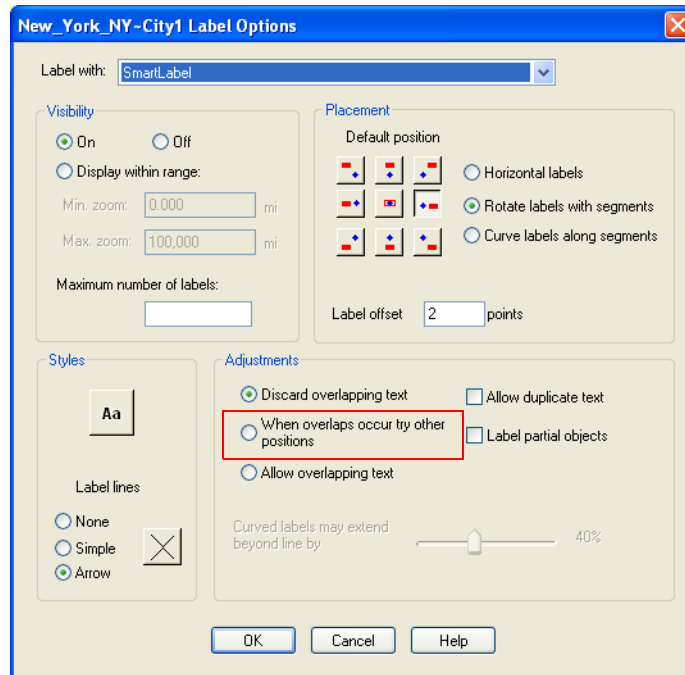
4. Select the **When overlaps occur, try other positions** radio button and click **OK**. This option is not available when you select the **Allow Overlapping Text** radio button.

5. Click **OK** again to return to the Map window.

> **Note** This feature applies to Autolabels only. You cannot use this option to reposition custom labels. You can position custom labels manually.

MapInfo Professional draws the labels in the layers at the bottom of the Layer Control list first, then labels in the layers above them reposition accordingly. If MapInfo Professional cannot find a label position that does not overlap another label, the label does not display.

This type of additional label calculation may take more time to process. You may have to wait longer for your map to display.

Displaying More Curved Labels

When a curved label is longer than the polyline it describes, it hangs over or extends beyond the end of the polyline. If the label is more than 40% longer than the polyline, MapInfo Professional does not display the label by default. For labels within that 40% calculation, MapInfo Professional displays the text along the angle of the label's last character to provide a consistent look. The following figure shows labels that extend beyond the end of the polylines they describe.

Example of streets with extended labels

For this release, you control of the extension percentage and decide what looks best on your map.. For example, the following figure displays a neighborhood with labels with a 40% label extension.
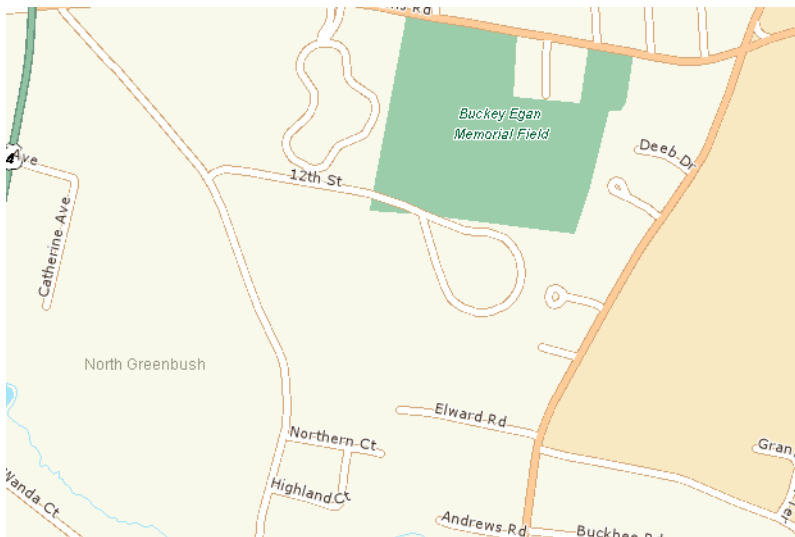
The following figure is the same neighborhood, but the label option is set to a 70% extension. The labels of some of the smaller streets now display.
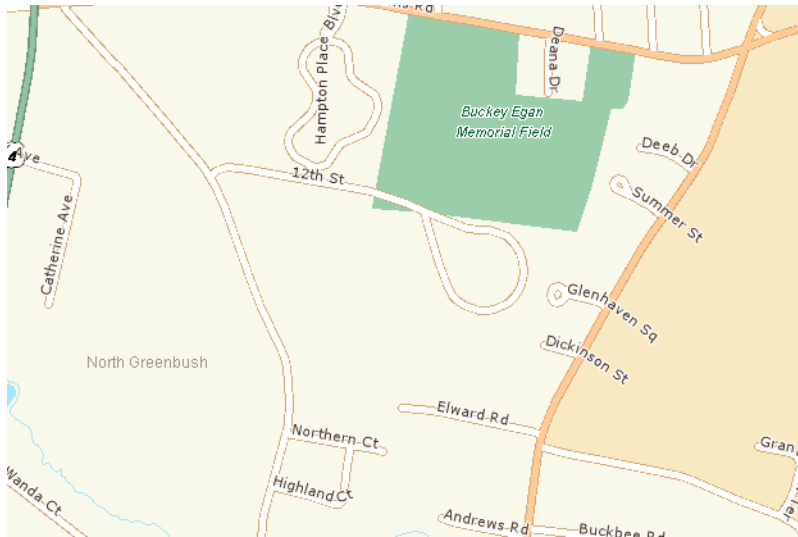
To set the curved label extension percentage:

1. With the map open, select **Map > Layer Control** or to display the Layer Control dialog box.
2. Scroll down to a street, highway, ferry, or other polyline layer.
3. Click **Label** to display the Label Options dialog box.
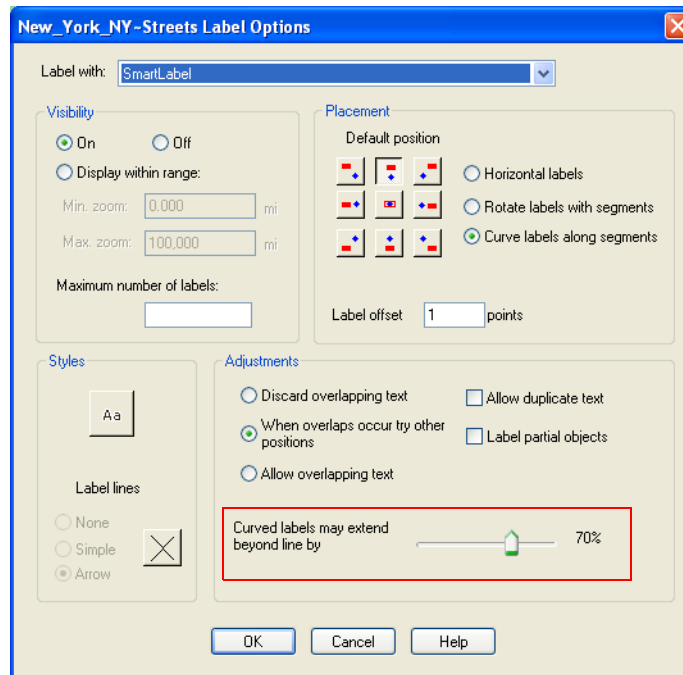
4. Click the **Curve labels along segments** option to enable the **Curved labels may extend beyond line by** slider. Slide the indicator to the extension percentage you want to allow for curved labels on the selected layer.

   Note   You must set this value for each polyline layer whose labels you want to extend. You can set the same or different extensions for each layer, as is appropriate for your data.

   Setting a higher value in the Maximum percent field displays more labels. We recommend that you experiment with this feature to find the appropriate percentage for your map.

   The default extension is 40%, but you can select any value between 0 and 100 using this slider. Workspaces you save with this percentage keep the value you select here. When you close MapInfo Professional, the percentage of this slider entry reverts to 40% until you reset it in a new session.

   Note   This feature is not available for the Horizontal labels or the Rotate labels with segments placement options.

5. When you have completed your entry, click **OK** to save these settings to your workspace. When you return to the map window, you will see the results.

This is a curved labels feature only. Adding this feature to a workspace sets its version to 9.5, which means you cannot open it in a pre-9.5 version of MapInfo Professional or ProViewer.

Changes to Viewing and Modifying Layer Selections

Now, when you make a selection in a layer, you can use the Context Menu to view the entire layer, select all from the layer, and make the layer editable. These selections can be points, lines, and polygons, but not labels.

Note   You must make a selection to enable the new context menu options. Also, if you do not have rights to edit the selected table, MapInfo Professional disables these new options.

To perform layer-specific tasks on the current map:

1. With your map open, select a layer you want to change.
2. Right-click your mouse to display the context menu.
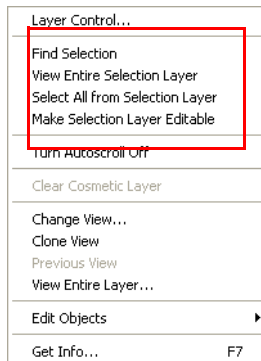
From here you can select one of these options to affect the current layer:

- **View Entire Selection Layer** to reset the map center and zoom so that all of the selected layer is visible
- **Select All from Selected Layer** to select all of the objects in the current layer
- **Make Selection Layer Editable** to enable editing on the selected layer

These new menu options should simplify your ability to view and work with a selected layer. When you make a selection in a layer (a table), the layer displays in **bold** in the Layer Control list. If you have more than one instance of the layer open at a time, all of the layers display in bold type.
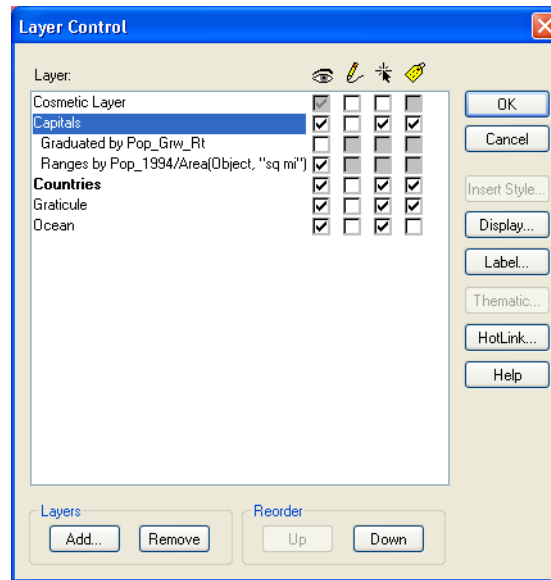
Important Selection Notes

- These selection options do not apply to seamless tables.
- When you make a selection in a Query table, MapInfo Professional selects the base table in both the Query window and any other open window that shares the base table.
- You cannot use the Make Selection Layer Editable option to edit read-only tables.
- If your map contains several layers that are based on the same table, you can only make one of those layers editable using the Make Selection Layer Editable command. By default, the top-most, selectable, and currently visible layer becomes editable.

Coordinate System and Datum Enhancements

Belgian EPSG Code Added

We have added a new EPSG Code:

- Belgian National System (7 parameters)\p31370

Croatian Coordinate System

We added the following coordinate system:

- Gauss Kruger zone 5

Egyptian Coordinate System

We have added a new Egyptian coordinate system:

- Egyptian Transverse Mercator

Estonian Coordinate System

We have added a new EPSG Codes for Estonian coordinate systems:

- L-EST97 (EUREF89)\p3301
- L-EST 1992 (EUREF89)\p3300

Fijian Coordinate Systems

We have added new Fijian coordinate systems:

- Fiji Map Grid (WGS72)
- Fiji Lat/Long(Viti Levu - Clarke 1880 datum)

Finnish Coordinate Systems

We have added new Finnish coordinate systems:

- Finnish Coordinate Systems (2003) Finnish KKJ Zone 0 through Zone 5
- Finnish Coordinate Systems (Old, 1996) Finnish KKJ Zone 0 through Zone 5
- Finnish Coordinate Systems (Old, 1990) Finnish KKJ Zone 0 through Zone 5

French Coordinate Systems

We have added the following coordinate systems:

- Lambert I Carto - Paris (Borne monde)\p27571
- Lambert II Carto - Paris (Borne monde)\p27572
- Lambert III Carto - Paris (Borne monde)\p27573
- Lambert IV Carto - Paris (Borne monde)\p27574
- Lambert I Nord - Paris (Borne monde)\p27561
- Lambert II Centre - Paris (Borne monde)\p275620
- Lambert III Sud - Paris (Borne monde)\p27563
- Lambert IV Corse - Paris (Borne monde)\p27564

Systèmes français Méridien de Paris (Borne Europe) (V7.8)

- "Lambert I Carto - Paris (Borne Europe)\p27571
- "Lambert II Carto - Paris (Borne Europe)\p27572
- "Lambert III Carto - Paris (Borne Europe)\p27573
- "Lambert IV Carto - Paris (Borne Europe)\p27574
- "Lambert I Nord - Paris (Borne Europe)\p27561
- "Lambert II Centre - Paris (Borne Europe)\p27562
- "Lambert III Sud - Paris (Borne Europe)\p27563
- "Lambert IV Corse - Paris (Borne Europe)\p27564

Systèmes français Méridien de Paris (Borne France) (V7.8)

- "Lambert I Carto - Paris (Borne France)\p27571
- "Lambert II Carto - Paris (Borne France)\p27572
- "Lambert III Carto - Paris (Borne France)\p27573
- "Lambert IV Carto - Paris (Borne France)\p27574
- "Lambert I Nord - Paris (Borne France)\p27561
- "Lambert II Centre - Paris (Borne France)\p27562
- "Lambert III Sud - Paris (Borne France)\p27563
- "Lambert IV Corse - Paris (Borne France)\p27564

Systèmes français RGF93 - Méridien de Greenwich (Borne monde)

- "France Lambert-93 (Borne monde)\p21540

Systèmes Français RGF93 - Méridien de Greenwich (Borne Europe) ---"

- "France Lambert-93 (Borne Europe)\p2154

Systèmes français RGF93 - Méridien de Greenwich (Borne France

- "France Lambert-93 (Borne France)\p2154

DOM-TOM IGN

- "Réunion, RGR92 - UTM 40S - IGN\p2975
- "PDN-Gauss Laborde Réunion-IGN\p2990
- "Antilles Françaises, RRAF1991 - UTM 20SN - IGN\p2989
- "Guadeloupe, Ste Anne- UTM 20N- IGN\p2970
- "Guadeloupe, Fort Marigot- UTM 20- IGN\p2969
- "Martinique, Fort Desaix- UTM 20- IGN\p2973
- "Guyane, RGFG95 - UTM 22N - IGN\p2972
- "Guyane, CSG67- UTM 22N- IGN\p2971
- "Guyane, RGFG95 - UTM 21N - IGN\p3313
- "Guyane, CSG67- UTM 21N- IGN\p3312
- "Nouvelle Calédonie, Grande Terre - UTM 58S - IGN72\p3060
- "Nouvelle Calédonie, Maré - UTM 58S - IGN53\p2995
- "Nouvelle Calédonie, Lifou - UTM 58S - IGN56\p2981
- "Mayotte, Combani1950 - UTM 38S - IGN\p2980
- "Mayotte, RGM04 - UTM 38S - IGN
- "Mayotte, Cadastre 1997 - UTM 38S - IGN

- "St Pierre et Miquelon - UTM 21N - IGN1950\p2987

Systèmes français Méridien de Greenwich (MIW avant 3 - Obsolète)

- "Lambert I Carto - Greenwich (Obsolète)
- "Lambert II Carto - Greenwich (Obsolète)
- "Lambert III Carto - Greenwich (Obsolète)
- "Lambert IV Carto - Greenwich (Obsolète)
- "Lambert I Nord - Greenwich (Obsolète)
- "Lambert II Centre - Greenwich (Obsolète)
- "Lambert III Sud - Greenwich (Obsolète)
- "Lambert IV Corse - Greenwich (Obsolète)

Réunion IGN

- "Réunion, RGR 92 - UTM 40 sud - IGN 1989\p10012
- "PDN-Gauss Laborde Réunion IGN\p4626

LABORDE Madagascar

- "Laborde Madagascar (mètre)
- "Laborde Madagascar (kilomètre)
- "Laborde Madagascar

German Coordinate Systems

We have added bounded coordinate systems:

- Gauss-Kruger (DHDN) bounded Zone 1 through 5

Irish Coordinate System

We have updated our Irish Coordinate System as follows:

- Irish Grid
- Irish Transverse Mercator (ITM)

Libyan Coordinate Systems

We have added new Libyan coordinate systems:

- LTM 2 Zone 5 through 13
- LTM 2 Zone 13
- UTM Zone 32 (LGD 2006) through UTM Zone 35 (LGD 2006)
- LTM 16

155 - A new Datum for Libya (LGD 2006) its parameters:

Ellipsoid - International

ShiftX = 208.4058 m
ShifYy = 109.8777
ShiftZ = 2.5764 m

Netherlands Coordinate System

We have added a bounded coordinate system:

- Netherlands National System (mm acc)

Polish Coordinate Systems

We have added new coordinate systems:

- "PUW 42/GK Zone (Pulkowo 1942)\p3333
- "PUW 42/GK Zone 4 (Pulkowo 1942)\p3334
- "Poland ETRS89 / CS92\p2180
- "GUGiK 80\p3328
- "Universal polar stereographic (WGS84)
- "Polish Lambert conformal
- "1965/1\p3120
- "1965/2\p2172
- "1965/3\p2173
- "1965/4\p2174
- "1965/5\p2175
- "ETRS89 / Poland CS2000 zone 5\p2176
- "ETRS89 / Poland CS2000 zone 6\p2177
- "ETRS89 / Poland CS2000 zone 7\p2178
- "ETRS89 / Poland CS2000 zone 8\p2179

Romanian Coordinate System

We have added two Romanian Coordinate Systems as follows:

- Romanian Stereo 1970
- Romanian Transverse Mercator

156 - Dealul Piscului 1970 datum for Romania

Krassovsky Ellipsoid #3

Shift X = 28

Shift Y = -121

Shift Z = -77

Swedish Coordinate System

We have added a new coordinate system:

- ST74\p3152

Turkish Coordinate Systems

We gave added the following coordinate systems:

- UTM Central Meridian 27 Zone 35 (ED50)
- UTM Central Meridian 30 (ED50)
- UTM Central Meridian 33 Zone 36
- UTM Central Meridian 36 (ED50)
- UTM Central Meridian 39 Zone 37 (ED50)
- UTM Central Meridian 42 (ED50)
- UTM Central Meridian 45 Zone 38 (ED50)
- GK Central Meridian 27 (GRS80)
- GK Central Meridian 30 (GRS80)
- GK Central Meridian 33 (GRS80)
- GK Central Meridian 36 (GRS80)
- GK Central Meridian 39 (GRS80)
- GK Central Meridian 42 (GRS80)
- GK Central Meridian 45 (GRS80)
- UTM Central Meridian 27 Zone 35 (GRS80)
- UTM Central Meridian 33 Zone 36 (GRS80)
- UTM Central Meridian 39 Zone 37 (GRS80)
- UTM Central Meridian 45 Zone 38 (GRS80)

Database Features

The following are the database changes for this version of MapInfo Professional.

Updated Codes Ensure Oracle 11g Compatibility

We have updated our list of coordinate system projection codes to include the Oracle 11g SRIDs. This ensures that .tab files based on Oracle tables contain the correct coordinate system reference so MapInfo Professional can display your data correctly. Where there is more than one coordinate system definition that matches a SRID, we have added those additional entries as well. This should ensure that your Oracle 11g data opens in the right projection every time.

Create Maps from Oracle 11g Tables with Annotation Text

We have added new functionality that allows you to display Oracle 11g Annotation Text correctly in your MapInfo .tab file. This data can be linked or live access.

When you download an Oracle 11g table that contains an Annotation Text column, MapInfo Professional reads the annotation text geometry and creates a text object. This text object contains arrays of objects consisting of the actual text string, the location at which the text is to be rendered, a leader line object, and any style attributes that have been saved with the object. For this version we are only supporting one annotation element for each record.

Note   A single annotation_text object in Oracle can contain all of the map's text objects.

If the table contains both an Annotation Text field and another Geometry field or fields, MapInfo Professional prompts you to select the information you want to display. When the application opens the table, it displays only what you have specified in the Map Catalog, whether it was a geometry field or the Annotation Text field. See **A Note about Opening Tables with Multiple Geometry Columns on page 116**.

Oracle also has a metadata table that stores and retrieves information related to the Annotation Text objects in the table. This metadata is called user_annotation_text_metadata, which is, the MapScale, the text expression (default string), and the text attributes (such as font name, font color, size, etc.). The last two fields are defaults if the actual table records for these fields are set to NULL..

Before you can download the Oracle 11g table, you have to make it mappable so you can display it.

Note We assume that you have the Oracle 11g client installed. Annotation text is a new feature of this Oracle release and is not available on earlier versions of the DBMS.

To open a table with Oracle 11g annotation text in it:

1. Choose **Table > Maintenance > Make DBMS Table Mappable** to open a DBMS connection. See **Opening a Connection to an Oracle Spatial Data Source on page 245** for specific instructions, if needed. At the end of this process the Select DBMS Table displays.

2. Select the Oracle table from the list and click **Open**. The Make Table Mappable dialog box displays.
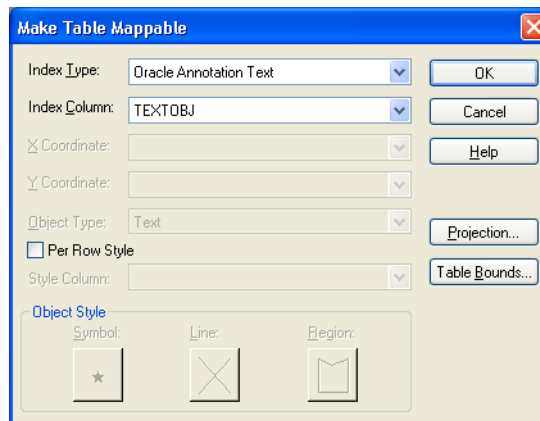
Note When **Oracle Annotation Text** displays in the Index Type drop-down list, then you know that the table contains an annotation text field.

3. Select **Oracle Annotation Text** from the Index Type drop-down list to display the annotation text as part of the table. MapInfo Professional only displays the geometry that is selected in the this list.

Note If you select **Oracle Annotation Text**, the other geometry information does not display.

4. If the **Projection** button is enabled, the application could not identify the projection of your table from the Oracle metadata. Select a projection for this table using the **Projection** button or accept the default Latitude/Longitude setting that is assumed by default.

If the **Projection** button is disabled, the application has read the projection information from the Oracle metadata and will use that projection to display the file.

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5. Click **OK** to make the table mappable. If the table is large, you may see a progress bar until a confirmation message displays. Click **OK** to clear the message.

6. Choose **File > Open** and open the mappable table you just created. The Open DBMS Table Options dialog box displays.

7. In this dialog box, select the appropriate button to open the table linked or live.

8. Under the Standard Mode option, click **Column Filter**. The Column Picker dialog box displays.
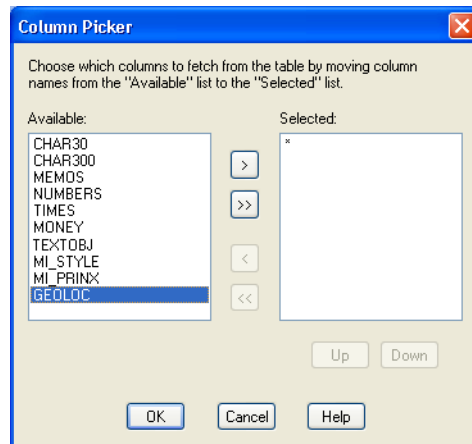
9. To display the Annotation Text in the new map, double-click TEXTOBJ in the Available column to move it to the Selected column.

    If there are additional geometry fields in this table, such as the GEOLOC field in the example above, do not move it (them) from the Available list to the Selected list with the TEXTOBJ entry.

10. Click **OK** to return to the Open DBMS Table Options dialog box. and display the table with annotation text.

Note Tables with Annotation Text in them are not editable.

A Note about Opening Tables with Multiple Geometry Columns

Remember, when you display annotation text, you cannot also display other geometry column data from the same table. If you try to open an Oracle table with Annotation Text and other geometry columns, you may see the following error:

```
Unsupported data type for column(s): TEXTOBJ Unable to fetch
records into table.
```

Use the Column Picker dialog box to specify which columns to open to avoid this error.

Annotation Text Sample Available

If you use an Oracle 11g database and want to try the Annotation Text feature in this release, we have provided annotation text examples on the Data CD. You can find this Oracle script in the \AnnotationLabels folder of the Introductory_Data directory.

Dragging and Dropping Table Columns Added

We have added new feature that allows you drag and drop columns in the Table Maintenance dialog boxes. This functionality is available in both the New Table Structure and the Modify Table Structure dialog boxes. This capability should make it easier to reorder the columns in a table.

To drag and drop a column in a selected table:

1. Open the table you want to change the column layer structure for.

2. Choose **Table > Maintenance > Table Structure**. One of the following occurs:
   - *If you have more than one table or workspace open*, the View/Modify Table Structure list displays. Select the table you want to modify and click **OK** to display the Modify Table Structure dialog box.
   - *If you have only one table open*, the Modify Table Structure dialog box displays.
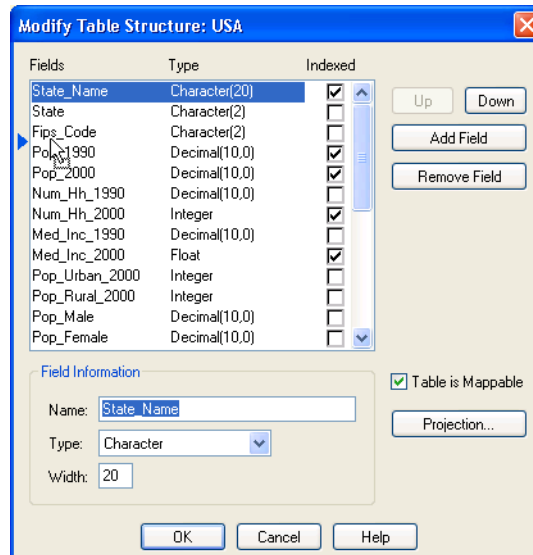
3. Click the column you want to move and drag it to the new position in the list. A small blue arrow shows the position of the column you are dragging. You can repeat this process for each column you want to reposition.

4. Click **OK** to save your change(s).

Miscellaneous Features

The following features may be of interest to some users:

- **.NET Programmability Capabilities Introduced**
- **New Drawing and Editing Tools and Toolbars Available**
- **Tell Us What You Think!**
- **MapInfo Professional Printing Guide Available in Help**

.NET Programmability Capabilities Introduced

MapBasic programs can now call functions and subroutines written using Microsoft's .Net development platform. You can write code in languages such as C# (C-sharp) and VB.Net (Visual Basic for .Net), using Microsoft's Visual Studio development environment. Then you can call those .Net routines from your MapBasic programs.

Even if you are not a MapBasic programmer, you can see a demonstration of this new capability by running the "Named Views" MapBasic tool (Nviews.mbx). The Named Views dialog box has been replaced with a .Net dialog, to take advantage of .Net capabilities. The new Named Views dialog is resizable, and it displays the named views (map bookmarks) in a hierarchical tree, where you can organize your views by dragging and dropping.

The MapBasic development environment is a free download available from MapInfo.com. To get your copy, click the link below or go to **www.mapinfo.com** and type MapBasic Overview in the Search field. There is also information there about building custom applications and integrating MapInfo Professional into your application using the MapBasic development environment.

http://extranet.mapinfo.com/products/Download.cfm?ProductID=1063&productcategoryid

A Demonstration of .Net Capabilities Already Implemented

If you are a .Net developer who wants to add GIS features to your application or you want to build mapping solutions of your own, you may want to take advantage of MapInfo Professional's robust feature set. In this release, code you write in the Microsoft Visual Studio development environment (using, for example, C# or VB .Net) can now call functions and subroutines in the MapBasic development environment.

To see a demonstration of this new functionality, run the Named Views MapBasic tool from the Tool Manager. We have autoloaded this tool for you so you do not have to. Make sure open a map before using this tool.

To use the Named Views tool:

1. Display the map at the exact position and zoom level you want to return to.
2. Select **Tools > Named Views > Named Views** to display the Named Views dialog box.
3. Click **Add** and type a description of the current map view. Click **Add** to save your description.

    When you add a named view, MapInfo Professional creates an XML file with the map location so you can go to it later. This XML file is located along the following path:

    ```
    C:\Documents and Settings\USERNAME\Application Data\
       MapInfo\MapInfo\Professional\950\nviews.xml
    ```
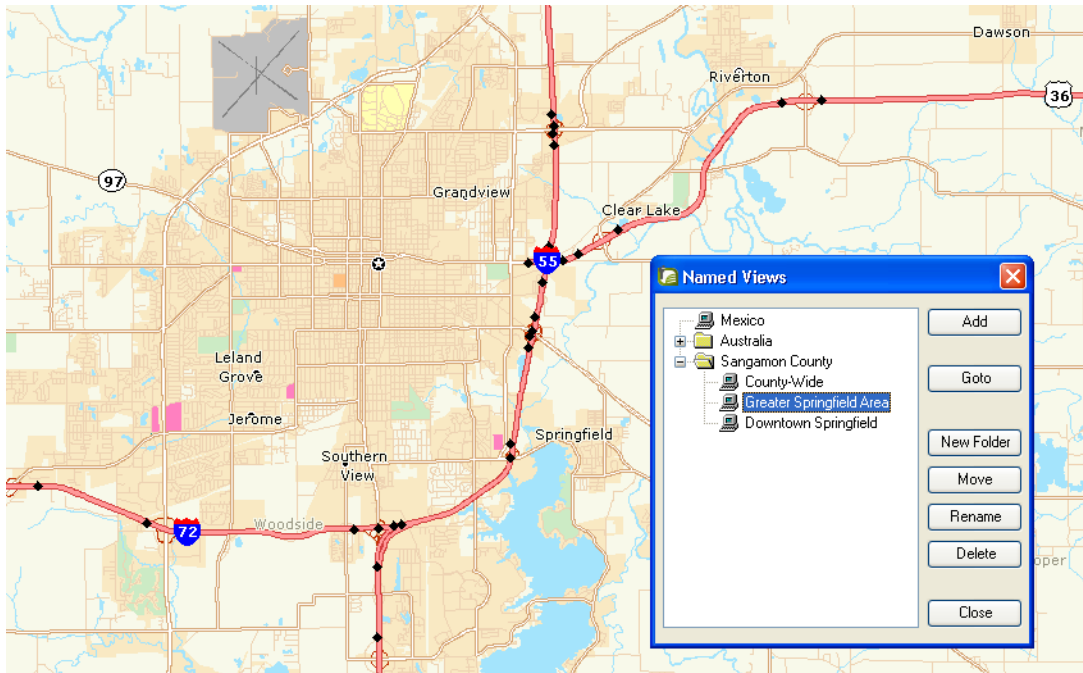
New Drawing and Editing Tools and Toolbars Available

Pitney Bowes MapInfo has made a contractual arrangement to include the MapCAD tools software on the installation CD. This product provides tools that work with MapInfo Professional to create maps that are appropriate for land development and surveying tasks. MapCAD requires MapInfo Professional 9.5 or later to run.

To install the MapCAD tools, save the zip file to your computer and unzip the files into the \tools subfolder under your MapInfo Professional installation folder. Then add the MapCAD MBX using the Tool Manager (**Tools > Tool Manager > Add Tool**).

Note   There is no menu for this tool. Individual tools display on floating toolbars. These toolbars display when you load or autoload the tool.

The manufacturer provides a full help system to assist you in using this product. For support, contact MapCAD Incorporated directly. Their web site is:

http://www.geoas.de

Tell Us What You Think!

Want to give MapInfo Professional Engineers feedback? We have created a new option in the Help menu so you can provide direct product feedback to Pitney Bowes MapInfo! If you have a need for a new feature, or you need our product to do something it doesn't currently do, use this feature to write to us. Whether you want to complain or complement, let us know so we can meet your MapInfo Professional needs better.

To send us feedback:

- Choose **Help > Send Product Improvement Suggestions** to display the customer feedback form.

Our team of Product Managers and Engineers will collect your feedback and consider your request in a future release of MapInfo Professional. You will be able to track the activity on your suggestions through different statuses and maintain a list of your ideas or suggestions. Your suggestions will be grouped with other similar ideas to help us build a list of new features and workflows for the application. You may be invited to give your feedback on the scoping and implementation of these suggestions and participate in surveys that help us narrow down the priority of the features we are working on.

The goal of this new feature is to ensure that MapInfo Professional stays on the forefront of your needs and product requirements. Help us do that important work for you!

MapInfo Professional Printing Guide Available in Help

Over the years, users have told us that the MapInfo Professional *Printing Guide* helps them print large or complex maps or layouts. You can now access the MapInfo Professional Printing Guide, which contains printing tips and tricks from our Quality Assurance department, in the Help System.

To access the Printing Guide in the Help System:

- Choose **Help > MapInfo Professional Help Topics > Productivity Aids > MapInfo Professional 9.5 Printing Guide**.

Data Enhancements

For this release of MapInfo Professional, we have updated the introductory and sample data we provide with the product.

- **Data Updates for this Release**
- **Understanding your Introductory and Sample Data**

Data Updates for this Release

The following data files have been added or updated:

Introductory Data Updates
- Updated US_Zips (updated April 2008)
- Updated USZipbdy (updated October 2006)
- Added Workspaces (Introductory_Data\NorthAmerica\USA\Workspaces\)
- Curved Labels Updates

Sample Data Additions

- Added a Cadastral Parcel Sample for Washington, D.C. (NAD 83) (updated January 2008)
- Added a contiguous Mississippi River table
- MapInfoBankBranches for Connecticut (Updated October 2007)
- Updated all StreetPro Samples
- Added 7 Countries to StreetPro samples including Austria, Denmark, France, Ireland, Norway, Portugal, Switzerland
- Updated all Telco Boundaries (updated March 2008)
- Updated Telco Data: Rate Centers (updated March 2008)
  - Areacodes (updated March 2008)
  - PSAP Boundaries (updated March 2008)
  - LATA Boundary (updated March 2008) PopInfo, ExchangeInfo
- Added another Washington DC workspace to show Parcel Data
- Updated Business Points Samples (updated January 2008)

Updated StreetPro Data

- UK to v9.0
- Switzerland to v9.0
- Ireland to v9.0
- Espana (Spain) to v 8.5
- Ireland to v9.0

Updated the USA Workspace in the Workspcs folder

- Turned on curved labeling and anti-alias for labels (smoothing)
- USA Map with anti-alias and curved labels enabled
- Updated default workspaces (US, CAN, Mexico, Europe) by enabling smooth labeling (these workspaces now have a version 950 stamp in the .wor file)
- Removed USGS_REF and Mapinfo - Us_Roads_States_Capitals.WOR (due to File reference error on WMS Server)
- Removed GLOBE - World_States and Provinces_Rivers_Topography.WOR (due to reference error on WMS Server)

Understanding your Introductory and Sample Data

If you install the data from the data CD that is shipped with MapInfo Professional, you will notice that it has the following folder structure and data presentation. We use the term Introductory Data to describe the data you can use to geocode locally and to enhance the maps you create in every session. The Sample Data folder provides examples of other types of data that are available from Pitney Bowes MapInfo.

To provide more room for data in the future, we have decided to ship a separate data CD with MapInfo Professional. Here is the folder structure and data presentation for the introductory and sample data that is shipped with MapInfo Professional. We use the term Introductory Data to describe the data you can use to geocode locally and to enhance the maps you create in every session. The Sample Data folder provides examples of other types of data that are available from Pitney Bowes MapInfo.

The Introductory_Data folder is structured as follows:

```
NorthAmerica
   \Canada
      \Can_WMS
      \Workspaces
   \Mexico
      \Workspaces
   \USA
      \AnnotationLabels
      \Dem
      \Demographics
         \Census2000
             \Cnty
             \Docs
             \State
      \USA_Maps
         \US_WMS
      \USRaster
      \Workspaces
World
   \Africa
      \Workspcs
   \Asia
      \China
         \Workspcs
      \India
         \Workspcs
      \Japan
         \Workspcs
   \Australia
      \Workspcs
   \Europe
      \Aust_Swz
      \Benelux
      \France
      \Germany
      \Greece
      \Iberia
      \Italy
      \Scand
      \UK
      \UKCrimeExample
      \Workspcs
   \World_WMS
```

The Sample Data shows you examples of the other MapInfo data products that may be useful to you. The SampleData folder is structured as follows:

```
Geographic
   \AirPhotoUSA
   \StreetPro Samples
      \StreetPro_Austria
      \StreetPro_Belgium
      \StreetPro_Canada
      \StreetPro_Denmark
      \StreetPro_Deutschland
      \StreetPro_Espana
      \StreetPro_France
      \StreetPro_Great_Britain
      \StreetPro_Ireland
      \StreetPro_Italy
      \StreetPro_Netherlands
      \StreetPro_Norway
      \StreetPro_Portugal
      \StreetPro_Sweden
      \StreetPro_Switzerland
      \StreetPro_US
Industry_Data
   \Business Points
      \UseCase
   \Insurance

   \TelcoData
      \AreaCodeInfo
      \CarrierInfo
      \ExchangeInfoPlus
      \LataInfo
      \MediaPrints
      \POPInfo
      \PSAP_Pro
      \RateCenterInfo
      \Workspaces
   \Weather
```

There are industry-specific sample workspaces and updated the samples that ship with the MapInfo Professional application to enhance your maps and geocoding. To make space for this new data, we have removed the indexes from all of the data except the USZIPBDY.TAB, US_ZIPS.TAB, and the US_CNTY.TAB files. You need the indexes for these files to maximize your ability to geocode to ZIP code boundaries and centroids and county centroids.

Installing the Free Data Locally

To install the free data locally:

• Place the Data CD in the CD drive and follow the prompts that display according to the needs of your implementation of MapInfo Professional.

CAUTION: **If you want to install this data in addition to your existing product data, you need to specify a new folder to ensure that your current data is maintained.**

A

Directory of MapInfo Professional Shortcuts

This section contains a comprehensive list of the shortcuts available in the MapInfo Professional application. You can create custom shortcuts by editing the MAPINFOW.MNU file using a text editor.

> *CAUTION:* **Making changes to the MAPINFOW.MNU file may cause the default shortcuts you change to stop working. Make these changes carefully and record your changes so you can change them back, if necessary.**

Topics in this Section:

Shortcuts for File Menu Items

Menu Item	Keystrokes
File > New Table	**Ctrl+N**
File > Open	**Ctrl+O**
File > Save Table	**Ctrl+S**
File > Save Workspace	**Ctrl+K**
File > Print	**Ctrl+P**
File > Exit	**Alt+F4**

Shortcuts for Edit Menu Items

Menu Item	Keystrokes
Edit > Undo	**Ctrl+Z**
Edit > Cut	**Ctrl+X**
Edit > Copy	**Ctrl+C**
Edit > Paste	**Ctrl+V**
Edit > Clear	**Del**
Edit > Reshape	**Ctrl+R**
Edit > New Row	**Ctrl+E**
Edit > Get Info	**F7**

Shortcut to Tools Menu Items

Menu Item	Keystrokes
Tools > Run MapBasic Prog	**Ctrl+U**

Shortcuts to Objects Menu Items

Menu Item	Keystrokes
Objects > Set Target	**Ctrl+T**
Objects > Clear Target	**Ctrl+Delete**

Shortcuts for Query Menu Items

Menu Item	Keystrokes
Query > Unselect All	**Ctrl+W**
Query > Find	**Ctrl+F**
Query > Find Selection	**Ctrl+G**

Shortcuts for Options Menu Items

Menu Item	Keystrokes
Options > Line Style	**Shift+F8**
Options > Region Style	**Ctrl+F8**
Options > Symbol Style	**Alt+F8**
Options > Text Style	**F8**

Shortcuts for Map Menu Items

Menu Item	Keystrokes
Map > Layer Control	**Ctrl+L**
Map > Create Prism Map	**F10**
Map > Create 3D Map	**F11**

Menu Item	Keystrokes
Map > Create Thematic Map	**F9**
Map > Modify Thematic Map	**Alt+F9**
Map > Previous View	**Alt+Left Arrow**

Shortcut for Layout Menu Item

Menu Item	Keystrokes
Layout > Previous View	Alt+Left Arrow

Shortcuts for Window Menu Items

Menu Item	Keystrokes
Window > New Browser	**F2**
Window > New Mapper	**F3**
Window > New Grapher	**F4**
Window > New Layout	**F5**
Window > Redraw Window	**Ctrl+D**
Window > Tile Windows	**Shift+F4**
Window > Cascade Windows	**Shift+F5**

Shortcuts by Keystroke

Menu Items	Keystrokes
Map > Previous View and Layout > Previous View	**Alt+Left Arrow**
File > Copy	**Ctrl+C**
Window > Redraw Window	**Ctrl+D**
File > New Row	**Ctrl+E**
Query > Find	**Ctrl+F**
Query > Find Selection	**Ctrl+G**
File > Save Workspace	**Ctrl+K**
Map > Layer Control	**Ctrl+L**
File > New Table	**Ctrl+N**
File > Open	**Ctrl+O**
File > Print	**Ctrl+P**
File > Reshape	**Ctrl+R**
File > Save Table	**Ctrl+S**
Objects > Set Target	**Ctrl+T**
Tools > Run MapBasic Program	**Ctrl+U**
File > Paste	**Ctrl+V**
Query > Unselect All	**Ctrl+W**
File > Cut	**Ctrl+X**
File > Undo	**Ctrl+Z**
Objects > Clear Target	**Ctrl+Delete**
Window > New Browser	**F2**
Window > New Mapper	**F3**
Window > New Grapher	**F4**
Window > New Layout	**F5**

Menu Items	Keystrokes
File > Get Info	**F7**
Options > Text Style	**F8**
Map > Create Thematic Map	**F9**
Map > Create Prism Map	**F10**
Map > Create 3D Map	**F11**
File > Exit	**Alt+F4**
Options > Symbol Style	**Alt+F8**
Map > Modify Thematic Map	**Alt+F9**
Options > Region Style	**Ctrl+F8**
Window > Tile Windows	**Shift+F4**
Window > Cascade Windows	**Shift+F5**
Options > Line Style	**Shift+F8**
Edit > Delete	**Del**

Glossary of Terms

Term	Definition
3DMap	A window that allows you to view your maps containing continuous grids from various viewpoints in 3D Format.
Add Node Button	Use the Add Node button to add a node to regions, polylines, and arcs. You can add nodes when the Reshape tool is in effect. Adding nodes can give more precision to your object.
Address Dictionary	The search dictionary used for matching addresses during geocoding.
Alias	The name assigned to an expression or a column when you are working in the **Select Columns** field in the SQL Select dialog box. This name appears as the column title for that expression or column in a Browser.
Application	A computer program used for a particular kind of work, such as word processing. Application is often interchangeable with the word program.
Arc Button	The Arc button allows you to access the Arc tool. Use the Arc tool to draw an arc the size and shape of one quarter of an ellipse. Once you have created an arc, you can reshape it to the desired size.
ASCII	The acronym for American Standard Code for Information Interchange. ASCII is a standard code used in most microcomputers, computer terminals, and printers for representing characters as numbers. It not only includes printable characters, but also control codes to indicate carriage return, backspace, and so forth.
Assign Selected Objects Button	Use this button to permanently assign all selected map objects to the target district.
Axis	Used in a graph, these are graduated lines bordering the plot area of a graph. Location coordinates are measured relative to the axes. By convention the X-axis is horizontal, the Y-axis is vertical.
Bar Chart	A type of thematic map that displays a bar chart of thematic variables for each record in a table from which the map is based.
Base Map	Usually the dominant or underlying layer in a given map. *(These are typically the data layers that Pitney Bowes MapInfo® offers as ready products.)* Users usually layer their own data on top of these base maps or use these base maps to geocode or to make new layers. Examples are joining industry data to postal code boundaries for analysis and then combining arrangements of the postal codes into new territory layers.
Base Table	A permanent table, which is part of a map, as opposed to a query table, which is temporary. You can edit the contents of base tables, and you can change their structure (by editing, deleting, reordering columns and adding or deleting graphic objects).

Term	Definition
Bitmap	A screen image displayed as an array of dots or bits. Software usually generates either bit-mapped (raster) or object-oriented (vectored) files. MapInfo Professional can work with both.
Boundary Region	In GIS a boundary is a region on a map enclosed by a border. Cambria County, Manitoba, and Argentina would all be represented as boundaries on a map. Note that a single boundary could encompass several polygons. Thus, Indonesia is a single boundary but consists of many polygons.
Boundary Select Button	The Boundary Select button allows you to access the Boundary Select tool. Use the Boundary Select Tool to search for and choose all the objects within a given region, such as a state or county boundary, a police patrol district, a sales territory, and so forth.
Browser	A window for viewing a table (or database, spreadsheet or text file) in tabular form.
Buffer	A type of proximity analysis where areas or zones of a given distance are generated around selected map objects. Buffers are user-defined or can be generated for a set of objects based on those objects' attribute values. The resulting buffer zones form region objects representing the area that is within the specified buffer distance from the object.
Cadastral	A map set used to graphically define the cadastre or land ownership in a given area. A tax map is an example of a cadastral map. The land registration, assessment roles, and tax maps comprise the cadastre.
Cancel Button	A command button for closing a dialog box without making changes.
Cartesian	A coordinate system using an x,y scale not tied to any "real-world" system. Most CAD drawing uses this method of registering objects (for example, a drawing of a ball-bearing assembly, floor plans). If a drawing uses Cartesian coordinates, one corner of the drawing probably has coordinates 0, 0.
Cartesian Coordinates	The conventional representation of geometric objects by x and y values on a plane.
Cartographic Legend	A MapInfo Professional legend window that enables you to display cartographic information for any map layer in the Map window.
Cartography	The art and science of making maps. In GIS it is also the graphic presentation and visual interpretation of data.

Term	Definition
Centroid	Usually the center of a map object. For most map objects, the centroid is located at the middle of the object (the location halfway between the northern and southern extents and halfway between the eastern and western extents of the object). In some cases, the centroid is not at the middle point because there is a restriction that the centroid must be located on the object itself. Thus, in the case of a crescent-shaped region object, the middle point of the object may actually lie outside the limits of the region; however, the centroid is always within the limits of the region.

In MapInfo Professional, the centroid represents the location used for automatic labeling, geocoding, and placement of thematic pie and bar charts. If you edit a map in Reshape mode, you can reposition region centroids by dragging them. |
Change View Button	This button allows you to change the zoom, map scale, and window centering aspects of the Map or Layout that currently displays.
Check Box	A small square box that appears in a dialog box. You can click in the check box or on the text in order to select the option. Check boxes are generally present when multiple options can be selected at one time.
Click	To press and release a mouse button quickly.
Column	A column in a Browser corresponds to a field in a table. A column contains a specific type of information about an object, such as Name, Abbreviation, Land area, Price, Population, and so forth. The information for each object is listed on a row in the Browser.
Command	A word or phrase, usually found in a menu, that displays a dialog box and/or carries out an action.
Conflict Resolution	When conflicts exist between the data residing on a remote database and new data that you want to upload to the remote database via a MapInfo Professional linked table. The conflict resolution process is invoked whenever an attempt to save the linked table detects a conflict in an update.
Control Menu	A menu activated through the Control Menu Box located in the upper left corner of all windows. The control menu is used to resize, move, maximize, minimize, or close the window.
Control Points	The points on a raster image whose coordinates serve as a reference for associating earth coordinates with any location on the image. See **Registration on page 144**.
Coordinate	An x,y location in a Cartesian coordinate system, or a Latitude, Longitude location in an earth coordinate system. Coordinates represent locations on a map relative to other locations. Earth coordinate systems may use the equator and the Greenwich prime meridian as fixed reference points. Plane coordinate systems describe a two-dimensional x,y location in terms of distance from a fixed reference and are usually in the first quadrant so that all coordinates are positive numbers.

Term	Definition
Coordinate System	A coordinate system is used to create a numerical representation of geometric objects. Each point in a geometric object is represented by a pair of numbers. Those numbers are the coordinates for that point. In cartography, coordinate systems are closely related to projections. You create a coordinate system by supplying specific values for the parameters of a projection. See **Cartesian Coordinates on page 133**, **Projection on page 143**, and **Spherical Coordinates on page 145**.
Cosmetic Layer	The topmost layer of a Map window. Objects may be placed in this layer such as map titles and graphic objects. It is always displayed, and all objects placed in the Cosmetic Layer must be saved to a new or existing layer.
Data Aggregation	A process that occurs when combining separate map objects into a single object. MapInfo Professional calculates what the column values for the new object should be, based on sums or averages of the values of the original objects.
Data Disaggregation	A process that occurs when splitting a map object(s) into smaller parts where MapInfo Professional splits the data associated with the map object(s) into smaller parts to match the new map objects.
Data Sources	An ODBC data source is an SQL database and the information you need to access that database. For example, an SQL Server data source is the SQL Server database, the server on which it resides, and the network used to access that server.
Database	Any organized collection of data. The term is often used to refer to a single file or table of information in MapInfo Professional.
Decimal Degree	The decimal representation of fractions of degrees. Many paper maps express coordinates in degrees, minutes, seconds (for example, 40_30*i*10*l*), where minutes and seconds are fractions of degrees. 30 minutes equal half a degree, and 30 seconds equal half a minute. MapInfo Professional, however, expresses coordinates in decimal degrees (for example, 72.558 degrees), where fractions of degrees are expressed as decimals. Thus, the longitude: 40 degrees, 30 minutes, would be expressed in MapInfo Professional as 40.5 degrees.
Default	The value or option used in the absence of explicit specification. Often the original setting or value for a variable.
Degrees Longitude, Degrees Latitude, Decimal Degrees	Degrees (longitude and latitude) are coordinates used to represent locations on the surface of the earth. Longitude, or X-coordinate, represents a location's east-west position, where any location west of the prime meridian has a negative X value. Latitude, or Y-coordinate, represents a location's north-south position, where any location south of the equator has a negative Y value.
Derived Column	In a table created through the SQL Select, a derived column is one created by using an expression. The column is derived in the sense that it isn't just a copy of the data in one of the tables being accessed by the SQL Select command.

Term	Definition
Derived Field	The same as a derived column.
Deselect	The process of undoing a selection. The object or area you deselect will not be affected by subsequent commands. Performed by selecting another area, by clicking in a blank area, or by executing the Unselect All command.
Digitizer, Digitizing Tablet	An electronic device that lets you trace a paper map into a GIS or CAD package. The digitizer consists of a table (or tablet) onto which you attach a paper map. You then can trace the map by moving a hand-held, mouse-like device known as a cursor, or puck, across the surface. Digitizing a map produces vector data as the end result.
Districts Browser	A special browser that displays when redistricting. It differs from other Browser windows in the following respects: one row can only be selected at one time, one row is always selected, and the selected row becomes the target district into which you can add other objects.
Dot Density Map	A type of thematic map that carries information by showing a large number of tiny dots, wherein each dot represents some specific unit quantity. For example, for a population dot density map each dot might represent 10,000 people.
Drawing Toolbar	A MapInfo Professional window containing twelve buttons that access tools for drawing and modifying objects on your map or layout.
Edit Handle	The small boxes that appear at the four corners of the minimum bounding rectangle of an object in an editable layer of a Map window or in a Layout window.
Ellipse Button	The Ellipse button allows you to access the Ellipse tool. Use the Ellipse tool to create elliptical and round objects.
Export	The process whereby a program saves information in a file to be used by another program.
Expression	A statement containing two parts: 1) column names and constants (for example, specific data values), and 2) functions (for example, area) and operators (for example, +, -, >), in order to extract or derive information from a database. Expressions are used in *Select, SQL Select, Update Column, Create Thematic Map,* and *Label with Column.*
Field	A field in a table corresponds to a column in a Browser. A field contains a specific type of information about an object, such as, name, abbreviation, land area, price, population, and so forth. The record for each object consists of that object's values for each of the fields in the database.
File	A collection of information that has been given a name and is stored on some electronic medium such as a tape or disk. A file can be a document or an application.
Fill Pattern	The design and color used to fill a closed object.

Term	Definition
FLEXNet Operations module (FNO)	The Pitney Bowes MapInfo database that maintains product entitlements and information about their activation.
Font	A character set based on a particular style used for text characters.
Frame Button	The Frame button allows you to create frames in a layout. Each frame can display a map, graph, Browser, map legend, graph legend, Info window, statistics window, and message window or, it can be an empty frame.
Generalization	The process of simplifying a data set to a size that can be easily manipulated and represented. For example, a river may have many twists and turns; however, if a map covers a very large area, the river may be represented as a straight line. Similarly, in a map of a very large area, a city might be represented as a point marker.
Geocode	The process of assigning X and Y coordinates to records in a table or database so that the records can be displayed as objects on a map.
Geographic Information System (GIS)	An organized collection of computer hardware and software designed to efficiently create, manipulate, analyze, and display all types of geographically or spatially referenced data. A GIS allows complex spatial operations that are very difficult to do otherwise.
Grabber Button	The Grabber Button allows you to access the Grabber tool. Use the Grabber tool to reposition a map or layout within its window.
Graduated Symbols Map	A type of thematic map that shows symbols (point objects) in a variety of sizes to indicate which objects have higher or lower numerical values.
Graph window	A window that displays numerical data in the form of a graph.
Graticule	A grid of horizontal (latitude) and vertical (longitude) lines displayed on an earth map, spaced at a regular distance (for example, every five degrees, every fifteen degrees). Used to establish a frame of reference.
Grid Surface Map	A type of thematic map that displays data as continuous color gradations across the map. This type of thematic map is produced by an interpolation of point data from the source table. A grid file from the data interpolation is generated and is displays as a raster image in a Map window.
Heads-Up Digitizing	A method of digitizing where the user creates vector objects by tracing over a raster image displayed on the screen. Thus, heads-up digitizing does not require a digitizing tablet.
Help Button Bar	A bar located at the top of the Help Window that contains buttons you use to move to Help topics.
Horizontal Scroll Bar	The Horizontal scroll bar appears at the bottom of the MapInfo Professional window. Use the horizontal scroll bar to move left and right. The scroll box inside the scroll bar indicates your horizontal location. You can use the mouse to scroll to other parts of the window.

Term	Definition
Hot Views	MapInfo Professional technology that automatically updates all the windows you have open for a particular table when you make a change in any one of the windows. For example, if an item is selected in a Map window, it will be selected in all other Map windows and Browsers you have open for that table.
Import	The process whereby a program loads a file that is the output of another program.
Individual Values Map	A type of thematic map that shades records according to individual values.
Inflection	The process of deviating the color in ranged thematic maps to emphasize some numerical significance. In thematic mapping we insert a new color between the top and bottom color for second interpolation of data. For example, suppose we were showing population growth with blue representing an increase in population growth and red representing a decrease in population growth. We could have white as the inflection color for a range that has zero or almost zero population growth, so that lighter shades of blue would represent a smaller population growth and lighter shades of red would represent a smaller decline in population.
Info Button	The Info button allows you to access the Info tool. Use the Info tool to select a location on your map, including multiple overlapping objects and display a list of all objects at that location. You can then choose an object from the list and view the tabular data for that object.
Islands	Small areas outside the main boundary that can be reached within the specified time or distance.
IsoChrone	An IsoChrone is a polygon or set of points representing an area that can be traversed from a starting point in a given amount of time along a given road network.
IsoDistance	An IsoDistance is a polygon or set of points representing an area that can be traversed from a starting point travelling a given distance along a given road network.
Isogram	An Isogram is a map that displays a set of points that satisfy a distance or time condition. Isograms are either IsoChrones or IsoDistances.
Join	The process of creating a relational link between two tables (databases).
Latitude	The horizontal lines on a map that increase from 0 degrees at the Equator to 90 degrees at both the North (+90.0 degrees) and South (-90.0 degrees) poles. Used to describe the North-South position of a point as measured usually in degrees or decimal degrees above or below the equator.

Term	Definition
Layer	A layer is a basic building block of MapInfo Professional maps and consists of a table with graphic and text settings like style override, labeling, and zoom layering. Maps are made of one or more superimposed layers (for example, a layer of street data superimposed over a layer of county or postal code boundaries) which you can design to convey geographical or statistical information. Typically, each map layer corresponds to one open table. Cosmetic Layers contain map objects that represent temporary map annotations (for example, text objects). Cosmetic Layers contain map objects that represent temporary map annotations (for example, labels). See **Cosmetic Layer on page 135** and **Table on page 146**.
Layer Control Button	The Layer Control Button allows you to access the Layer Control dialog box. This dialog box allows you to specify how the various tables in a Map window are layered and displayed. See **Accessing Layer Control on page 148**.
Layout Window	A window where you arrange and annotate the contents of one or several windows for printing.
Legend	The part of a map, which explains the meaning of different colors, shapes, or fill patterns used on the map. See also **Cartographic Legend on page 133**.
Legend Frames	Each legend window contains one or more legend frames each corresponding to a style or theme layer in the Map window.
Legend Window	A window containing legend frames. You can create more than one legend window for each map. The legend window can contain more than one frame. For example, you can have one legend window containing four legend frames, or you can have four legend windows, each containing one legend frame.
Legend Window Button	Use the **Legend Window** button to display the Legend window associated with maps or graphs.
Line, Line Object	A map object defined by a set of sequential coordinates that may represent the generalized shape of a geographic feature (for example, street centerlines, railroads, cables). A Pitney Bowes MapInfo street map is a collection of thousands of line objects.
Line Button	The Line button allows you to access the Line tool. Use the Line tool to draw straight lines.
Line Style Button	Use the Line Style button to access the Line Style dialog box. The Line Style dialog box allows you to set the line type, thickness and color of line objects (lines, arcs and polylines) and borders of closed objects. You can also change the type, thickness and color of objects you are editing.
Linked Table	A linked table is a special kind of MapInfo table that is downloaded from a remote database and retains connections to its remote database table. You can perform most operations on a linked table that you do for a regular MapInfo table.

Term	Definition
Longitude	The vertical lines on a map, running from the North to South poles, used to describe the east-west position of a point. The position is reported as the number of degrees east (to -180.0 degrees) or west (to +180.0 degrees) of the prime meridian (0 degrees). Lines of longitude are farthest apart at the Equator and intersect at both poles, and therefore, are not parallel.
Longitude/ Latitude	MapInfo Professional's default coordinate system for representing geographic objects in a map.
Main Toolbar	A window containing buttons for choosing tools, accessing dialog boxes, and showing or hiding windows.
Map Catalog	The MapInfo map catalog stores information about the location of spatial columns on the DBMS. There must be one catalog per database. The EasyLoader application can create this catalog for each database: Oracle 8, 9, Informix, SQL Server, and MS Access. Additionally, you can create a map catalog manually with instructions in the MapInfo Professional *User Guide*. This is a one-time only task per database and is required before any tables on that database can be mapped in MapInfo Professional.
Map Scale	A statement of a measure of the map and the equivalent measure on the earth. Often expressed as a representative ratio of distance, such as 1:10,000. This means that one unit of distance on the map (for example, one inch) represents 10,000 of the same units of distance on the earth.
	The term *scale* must be used carefully. Technically, a map of a single city block is *large–scale* (for example, 1:12,000), while a map of an entire country is *small–scale* (for example, 1:1,000,000). A 1:1,000,000 map is considered small-scale because of the small numeric value obtained when you divide 1 by 1,000,000.
Map Segment	In a street map, a segment is a single section of the street. In urban maps, segments are generally one block long. Address ranges are stored at the segment level.
MapBasic	The programming language used to customize and/or automate MapInfo Professional. To create MapBasic applications, you need the MapBasic compiler, which is a separate product. However, you do not need the MapBasic compiler to run a compiled MapBasic application.
Map window	A window that allows you to view a table as a map.
Meridian	A line or a portion of a line running from the North to the South pole. A longitudinal line.

Term	Definition
Military Grid Reference System	The U.S. Military Grid Reference System (MGRS) is a grid reference system that MapInfo Professional supports when displaying maps in a Map window. It is the military version of the civilian-use Universal Transverse Mercator (UTM) grid system. Military grid references are very similar to the mathematical Cartesian x,y system in which coordinates are giving in terms of x (easting) and y (northing).

In this system, the world is generally divided into 6° by 8° geographic areas, each of which is given a unique identification, called the Grid Zone Designation. These areas are covered by a pattern of 100,000-meter squares. Each square is identified by two letters called the 100,000-meter square identifications. A reference keyed to a gridded map of any scale is made by giving the 100,000- meter square identification together with the numerical location. Numerical references within the 100,000-meter square are given to the desired accuracy in terms of the easting (E) and northing (N) grid coordinates for the point. The Grid Zone Designation usually is prefixed to the identification when references are made in more than one grid zone designation area. |
Minimum Bounding Rectangle (MBR)	For any given map object, the smallest rectangle that completely encompasses the object.
Native Projection	The projection in which a map's coordinate points are stored. MapInfo Professional allows you to display maps in other projections, but not as fast as displaying maps in their native projection.
Node	An end-point of a line object, or an end-point of a line segment which is part of a polyline or region object.
Non-Earth Map	A map in which objects are not explicitly referenced to locations on the earth's surface. Floor plans are typical examples.
ODBC Drivers	An ODBC driver is a dynamic-link library (.DLL) file that MapInfo Professional uses to connect to an SQL database. Each type of SQL database requires a different ODBC driver.
ODBC Table	An ODBC table is a table residing in a remote SQL database.

Term	Definition
OSGB MasterMap GML Files	Many of our international customers want to display MasterMap GML files developed by the Ordnance Survey of Great Britain (OSGB). We provide support for some of the Topography features (OSGB version 2.0), Topographic Area, Lines and Points, Cartographic Symbols and Boundary Lines.
	We maintain support for these features and add support for Cartographic Text and Departed Features. MapInfo Professional will continue to support GML files as the OSGB updates the schema that underlies the GML technology.
	As the GML format gets more sophisticated in its support of additional layers, feature types, and attributes, we will continue to provide full support for those changes. Currently, we support the OSGB recommended styles by mapping the style definitions to existing MapInfo Professional styles. Where it is not possible to render complicated fill patterns, we use the simple dot screen that the OSGB recommended to us. The OSGB style mapping to MapInfo styles is hard coded so it cannot be changed.
	For more information about OS MasterMap see **www.ordsvy.gov.uk/os_mastermap/home/home.htm**.
Outer Join	A type of multi-table join where all the records in the specified tables are included in the result table, even records that do not match the join criteria. MapInfo Professional does not perform outer joins.
Pack	The process of compressing MapInfo tables so that they use less disk space.
Pie Chart Map	A type of thematic map that displays a pie chart of thematic variables for each record in the table from which the map is based.
Pin Map, Push-Pin Map	A type of map named after the practice of inserting push-pins into a wall map. A pin map features point objects. Geocoding a database is one way of creating a pin map.
Pixel	The acronym for picture element. The smallest dot that can be displayed on a computer screen. If a screen is described as having a resolution of 1,024 x 768, the screen shows 1,024 pixels from right to left, and 768 pixels from top to bottom. Each character, object, or line on the screen is composed of numerous pixels.
Point, Point Object	A map object defined by a single X,Y coordinate pair. Each point object is represented by a symbol style (for example, circle, square, triangle, etc.).
Point Size	A unit of measurement equal to 1/72 of an inch. Used to measure character size.
Pointer	An arrow-shaped cursor on the screen that can be manipulated by a mouse.
Polygon, Polygon Object	A simple bounded region, simple in the sense that it does not consist of more than one polygon (where a boundary can consist of more than one polygon). The Polygon tool creates a single polygon.
Polygon Button	The Polygon button allows you to access the Polygon tool. Use the Polygon tool to draw polygons one side at a time.

Term	Definition
Polygon Overlay	A spatial operation that merges overlapping polygons from two layers to analyze those intersected areas or to create a third layer of new polygons.
Polyline, Polyline Object	A linetype object made up of many line segments. It contains more than two nodes, that is, more than its end points. The Polyline tool creates a single polyline. In contrast, the Line tool only draws a single straight line (that is, a line defined by two nodes).
Polyline Button	The Polyline button allows you to access the Polyline tool. Use the Polyline Tool to draw polylines (a connected sequence of lines that are not closed).
Projection	A mathematical model that transforms the locations of features on the earth's surface to locations on a two-dimensional surface, such as a paper map. Since a map is an attempt to represent a spherical object (the earth) on a flat surface, all projections have some degree of distortion. A map projection can preserve area, distance, shape or direction but only a globe can preserve all of these attributes. Some projections (for example, Mercator) produce maps well suited for navigation. Other projections (for example, equal-area projections, such as Lambert) produce maps well suited for visual analysis.
Query Table	A temporary table produced as the result of a Select, SQL Query, or by choosing objects in a Map window or records in a Browser and mapping, graphing, or browsing that selection. You cannot make edits and structural changes on query tables, but you can edit a selected set of rows in your source table through a query table. See **Selection on page 145** and **Base Table on page 132**.
Radius Select Button	The Radius Select button allows you to access the Radius Select tool. Use this tool to select all of the objects within a certain radius. See **Using the Radius Select Tool on page 294**.
Ranged Map	A type of thematic map that displays data according to ranges set by the user. The ranges are shaded using colors or patterns.
Raster Image	A type of computerized picture consisting of row after row of tiny dots (pixels). Raster images are sometimes known as bitmaps. Aerial photographs and satellite imagery are common types of raster data found in GIS. A computer image can be represented in raster format or in vector format. See **Scanning on page 144** and **Vector Image on page 148**.
Record	All the information about one object in a database or table. A record in a table corresponds to a row in a Browser.
Rectangle Button	The Rectangle button allows you to access the Rectangle tool. Use the Rectangle tool to draw rectangles and squares.
Redistricting	The process of assigning map objects to groups. As you assign map objects, MapInfo Professional automatically calculates totals for each group and displays the totals in a special Districts Browser. This process is sometimes known as load-balancing.
Reference Grids	A matrix of letters and numbers that assist users in some style dialog boxes that identify specific line styles, colors, and patterns.

Term	Definition
Region, Region Object	An enclosed area defined by one or more polygons. If a region contains one or more lakes or islands, each lake or island is a separate polygon. A region is an object created with the Polygon tool.
Region Style Button	Use the Region Style button to access the Region Style dialog box. The Region Style dialog box allows you to specify the color, pattern, and borderline style of closed objects. You can also change the color and pattern of objects you are currently editing.
Registration	Usually the first stage of the digitizing process or when opening a raster image for the first time in MapInfo Professional. Before you can digitize a paper map or work with a raster image, you must point to several control points across the map, and enter their coordinates (for example, longitude, latitude). After you have registered the map, MapInfo Professional can associate a longitude, latitude position with any point on the map surface; this allows MapInfo Professional to perform area and distance calculations, and overlay multiple map layers in a single map. CAD systems as well as GIS systems utilize this process. See **Control Points on page 134**.
Reshape Button	The Reshape button toggles you in and out of Reshape mode. Use reshape to edit regions, polylines, lines, and points by moving, adding, and deleting nodes that define line segments. You can also copy and paste selected nodes to create new polylines. Reshape is very useful when you are creating sales territories or other merged boundaries. For example, you are merging ZIP Code boundaries to create school districts. Some ZIP Code boundaries fall into more than one school district. Use the Reshape button to reshape the school district to incorporate a section of the ZIP Code boundary. See **Reshaping Map Objects on page 280**.
Result Code	Result codes indicate whether a geocode match was made and the type of match it was, and conveys information about the quality of the match. The result code is an alphanumeric code of 1-10 characters.
Rounded Rectangle Button	The Rounded Rectangle button allows you to access the Rounded Rectangle tool. Use the Rounded Rectangle tool to draw rounded rectangles and squares.
Ruler Button	The Ruler button allows you to determine the distance between two points and the length of some path.
Run MapBasic Program Button	The Run MapBasic Program button accesses the Run MapBasic Application dialog box where you specify the MapBasic program you want to run.
Scale Bar	A map element that graphically depicts the map scale (for example, 0 —— 5 —— 10 km).
Scanning	The process of inputting data into a raster format using an optical device called a scanner.
Scroll Bar	Bars along the right and bottom sides of each window that allow you to scroll the window view. Clicking on the shaded area moves one window screen at a time.

Term	Definition
Select Button	The Select button allows you to access the Select tool. Use the Select tool to select one or more objects or records for analysis. You can also use the Select tool to edit a map, layout or browser. See **Selecting a Single Object from a Map or Layout on page 293**.
Selection	A data item or set of data items chosen for inspection and/or analysis. Regardless of the kinds of windows on the screen, selections can be made using the Select and SQL Select Query commands in MapInfo Professional's **Query** menu. In Browsers and Map windows, items can be placed in the selection set by clicking on them individually. Map windows also have special tools for selecting multiple items on a spatial basis.
Set Target District from Map Button	Use this button to make the selected object's district the new target district. See **Redistricting on page 143**.
Show MapBasic Window Button	The MapBasic window button allows you to display or hide the MapBasic window. You can perform many different tasks by typing commands into the MapBasic window. Choosing items from MapInfo Professional's menus could instead perform those same tasks. There are times, however, when it is easier to type commands into the command window.
Snap To Nodes	A feature that helps in drawing, moving and positioning map objects. In Snap mode (**S** key) the cursor snaps to a node of a map object when it comes within a certain distance.
Source Table	A permanent table, as opposed to a query table, which is temporary. You can edit the contents of source tables and you can change their structure (by editing, deleting, reordering columns and adding or deleting graphic objects). You cannot make edits and structural changes on query tables but you can edit a selected set of rows in your source table through a query table.
Spatial Analysis	An operation that examines data with the intent to extract or create new data that fulfills some required condition or conditions. It includes such GIS functions as polygon overlay or buffer generation and the concepts of contains, intersects, within or adjacent.
Spherical Coordinates	Latitude and longitude values that represent objects on the surface of the globe.
SQL (Structured Query Language)	A standard language used for analyzing information stored in relational databases. MapInfo Professional's database engine is based on the SQL standard.
SQL Query	The selection of information from a database according to the textual attributes and object relationships of the items. In MapInfo Professional, queries are created with the *SQL Select* and *Select* commands or with MapBasic commands in the MapBasic window.
Standard Deviation	A measurement of the variation of a set of data values around the mean.

Term	Definition
Standard Toolbar	A window containing buttons for quick access to the most commonly used menu commands such as Cut, Copy, and Paste.
Statistics Button	Use the Statistics button to display the Statistics window. The Statistics window tallies the sum and average of all numeric fields for the currently chosen objects/records. The number of records chosen is also displayed. As the selection changes, the data is re-tallied, and the statistics window is updated automatically. See **Redistricting on page 143**
Statistics Window	A window containing the sum and average of all numeric fields for the currently selected objects/records. The number of records selected is also displayed. As the selection changes, the data is re-tallied, and the statistics window updates automatically.
StatusBar	A bar at the bottom of the screen that displays messages that help in using MapInfo Professional. The StatusBar also displays messages that pertain to the active window. In a Map window, the StatusBar indicates what layer is editable, the zoom display of the map, and the status of Snap and Digitizing modes. In a Browser window, the StatusBar indicates the number of records currently displaying and the total number of records. In a Layout window, the StatusBar indicates the zoom display as a percentage of the actual size of the map.
Structured Query Language (SQL)	A standard language used for analyzing information stored in relational databases. MapInfo Professional's database engine is based on the SQL standard.
Subselect	A select statement that is placed inside the Where Condition field of the **SQL Select** dialog box. MapInfo Professional first evaluates the subselect and then uses the results of the subselect to evaluate the main SQL Select statement.
Symbol, Symbol Object	A small, relatively simple shape (for example, square, circle, star, push-pin) used to graphically represent a point object (for example, a customer location).
Symbol Button	The Symbol button allows you to access the Symbol tool. Use the Symbol tool to place point symbols (push pins) on your map
Symbol Style Button	Use the Symbol Style button to access the Symbol Style dialog box. The Symbol Style dialog box allows you to display symbols and specify attributes for symbols. The attributes you can specify are size, color, and symbol type. You can change the attributes of existing symbols and specify attributes for new point objects before you create them. The point objects must reside, or be created in an editable layer. See **Symbol, Symbol Object**.
Table	A table is made up of data in rows and columns. Each row contains information about a particular geographic feature, event, etc. Each column contains a particular kind of information about the items in the table. You can display tables with graphic information stored in them as maps. See **Base Table on page 132** and **Query Table on page 143**. See also **Layer on page 139**.

Term	Definition
Table Row	In a table, a row contains all the information for a single item. It corresponds to a record in a table.
Target District	The district that is selected in a Districts Browser to be affected by subsequent redistricting operations.
Text Button	Use the Text Button to add titles, labels, and annotations to maps and Layouts. You can also use the Text Tool to rotate text with its edit handle.
Text Cursor	A blinking vertical bar that shows the position where text can be edited, inserted, or deleted.
Text Style Button	Use the Text Style button to access the Text Style dialog box. The Text Style dialog box allows you to choose a font and font settings for your text.
Thematic Layer	A layer containing the thematic settings for a map layer. Thematic layers are drawn directly over the map layer on which the thematic settings are based. They are also drawn in a particular order, depending on the number of thematic layers you have and the type of thematic map objects you are creating.
Thematic Map	A type of map that uses a variety of graphic styles (for example, colors or fill patterns) to graphically display information about the map's underlying data. Thus, a thematic map of sales territories might show one region in deep red (to indicate the region has a large number of customers), while showing another region in very pale red (to indicate the region has relatively few customers).
Thematic Shading	Map objects — points, lines, regions — that have been shaded, using a pattern and/or color, according to some point of information about the object, or theme (population, size, annual rainfall, date, and so forth).
Thematic Variable	The data values displayed on a thematic map. A thematic variable can be a field or expression.
Theme Legend	MapInfo Professional's original style legend that allows you to display legends for thematic maps and graphs. MapInfo Professional automatically creates a theme legend window for a thematic map. Customize its display through the Modify Thematic Map dialog box. See **Cartographic Legend on page 133**.
Toolbars	MapInfo Professional windows that contain a variety of buttons used to access tools and commands for mapping and drawing. There are four Toolbars: the Standard Toolbar provides tools for commonly performed tasks, the Main Toolbar provides primary tools (for example, Zoom-in, Select, Info, etc.) and the Drawing Toolbar contains all drawing tools. The Tools Toolbar contains the Run MapBasic Program and the Show/Hide MapBasic Window buttons. Toolbars may be reshaped and hidden.
Transformation	The process of converting coverage coordinates from one coordinate system to another through programmatic translation. The transformation of CAD generated Cartesian coordinates into earth coordinates is an example.

Term	Definition
Ungeocode	The process of removing X and Y coordinates from records in a table or database. Can also describe a table that has not been geocoded, such as an ungeocoded table.
Vector Image	A coordinate-based data structure commonly used to represent map features. Each object is represented as a list of sequential x,y coordinates. Attributes may be associated with the objects. A computer image can be represented in vector format or in raster format. See **Raster Image on page 143**.
Vertical Scroll Bar	The Vertical scroll bar appears at the right of the most windows. Use the vertical scroll bar to move up and down. The scroll box inside the scroll bar indicates your vertical location. You can use the mouse to scroll to other parts of the window.
Web Feature Services	A Web Feature Service (WFS) client retrieves geospatial GML (Geography Markup Language)2 data using HTTP GET and HTTP POST requests over the Internet or through a private intranet. The WFS client was developed in accordance with the 1.0.0 OpenGIS® Web Feature Service Implementation Specification, which is available online: **http://www.opengeospatial.org/standards/wfs.**
Web Map Services	A Web Map Service (WMS) is a technology that gives you a source for data over your Intranet or over the Internet. This innovation is based on a specification from the Open GIS Consortium (OGC) and allows you to use raster map images from servers that also comply with the specification. An important element of this is that the WMS images are registered using the data's coordinate system so the WMS layer can be used with vector and other registered raster images. This specification supports transparent pixel definition for image formats as well. This allows you to use the images you retrieve as overlays and not solely as the bottom layer of your map. This is a very new technology and WMS may not exist for the geography you are looking for. Further, the WMS Server determines the data that is provided. See *Retrieving Map Data from Web Map Services i*n the *Help System*.
Web Service	A web service is a software system that is accessible using an intranet or Internet connection. Web services allow you to retrieve data that others are sharing internally or world-wide. The power of web services is that you can use them to create more powerful maps or in the case of geocoding or drive region services get more accurate and precise results using the same data.
Weighted Average	An average that gives more weight to one value over another when averaging. A method of averaging that uses a separate column of information to define the relative importance of each data value. The formula for a weighted average is: `SUM(DATA*WEIGHT)/SUM(WEIGHT)` where DATA is the column of data values and WEIGHT is the column of weights. If WEIGHT contains all 1's (or other non-zero values) this reduces to a simple average.
Window	In MapInfo Professional, Map windows, Browser windows, Graph windows and Layout windows are the major types of windows. They display the data stored in tables. The Toolbars, map legends, and the Info tool window are other types of windows.

Term	Definition
Workspace	A saved configuration of open MapInfo tables and windows.
Zoom-in Button	The Zoom-in button allows you to access the Zoom-in tool. Use the Zoom-in Tool to get a closer area view of a map or a layout. See **Zoom Layering**.
Zoom-out Button	The Zoom-out button allows you to access the Zoom-out tool. Use the Zoom-out tool to get a wider area view of a map or a layout. See **Zoom Layering**.
Zoom Layering	A setting that determines the range (for example, 0–3 miles, 2–5 miles, etc.) at which a layer is visible in a Map window.